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Somerset County Council.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1947

J. F. DAVIDSON,
O.B.E., M.B., Ch.B., D.P.H.,
County Medical Officer of Health.

To the Chairman and Members of the Health Committee,
Somerset County Council.

THE CHAIRMAN, LADIES AND GENTLEMEN,

I have the honour to submit my Eleventh Annual Report upon the Health Administration of the County.

The Report is a routine one, and, in the main, deals with statistical information.

Generally, the Report shows a satisfactory state of Public Health in the Administrative County.

The year has seen a continuation of our difficulties in staffing matters and considerable anxieties have arisen over keeping our various services in full operation.

Again, much time has been given to preparatory work in connection with the National Health Service Act.

I continue to be greatly assisted by all members of the staff, who have given loyal and efficient service.

I am,

Yours faithfully,

J. F. DAVIDSON,

County Medical Officer of Health.

County Hall,
Taunton.
July, 1948.

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STATISTICS AND SOCIAL CONDITIONS OF THE AREA.

Area (in acres): 1,028,992.

Population (1947): 450,970.

Live Births:—Total 8,849; Legitimate 8,443; Illegitimate 406; Still births 223.

Deaths:—Total 6,324; Urban 3,095; Rural 3,229.

Rateable value:—£2,843,284 (1947).

Sum represented by a penny rate:—£11,476 (1947-48); £11,271 (1948-49).

Birth rate:—19.62. Illegitimate births, 4.59 (per cent.).

Death rate:—14.02.

Deaths under 1 year of age:—301. Rate of infantile mortality:—34.0.

The birth rate shows an increase from last year's figure (17.82). The percentage of illegitimate births is still high but shows a decrease over last year's figure (6.19). The normal illegitimate rate for Somerset was between 3 and 4 per cent.

The death rate (14.02) is slightly higher than for the previous year (12.45). It is satisfactory to record that the rate of infantile mortality is only 34.0.

The chief causes of death were heart diseases (1,842 deaths), cancer and other forms of malignant disease (946 deaths), bronchitis and pneumonia (494 deaths), and tuberculosis (200 deaths).

The essential statistical returns covering births, infantile mortality, and deaths are given in the following tables from I to V.

TABLE I.

Causes of, and Ages at Death during the Year 1947.

CAUSES OF DEATH.	NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.						
	All ages.	Under 1 year.	1 and under 5 years	5 and under 15 years	15 and under 45 years	45 and under 65 years	65 and up-wards.
Typhoid and paratyphoid fevers	0	0	0	0	0	0	0
Cerebro spinal fever	8	2	1	1	1	2	1
Scarlet fever	1	0	0	1	0	0	0
Whooping cough	12	8	4	0	0	0	0
Diphtheria	1	0	1	0	0	0	0
Tuberculosis of respir. system..	155	1	0	0	95	44	15
Other forms of tuberculosis ...	45	1	8	8	20	6	2
Syphilitic diseases	25	0	0	0	2	10	13
Influenza	34	1	0	0	1	5	27
Measles	4	0	3	1	0	0	0
Acute poliomyelitis and polio-encephalitis	1	0	1	0	0	0	0
Acute inf. encephalitis ...	3	0	0	0	0	1	2
Cancer of buc. cavity & œsoph. (M), uterus (F)	99	0	0	0	4	33	62
Cancer of stomach & duodenum	196	0	0	0	8	71	117
Cancer of breast	109	0	0	0	7	42	60
Cancer of all other sites ...	542	1	2	3	26	172	338
Diabetes	40	0	0	0	2	12	26
Intra-cranial vascular lesions ...	827	0	1	1	9	165	651
Heart disease	1842	0	0	0	31	294	1517
Other diseases of circ. system...	236	1	0	0	7	42	186
Bronchitis	309	4	4	0	6	50	245
Pneumonia	185	30	5	2	9	28	111
Other respiratory disease ...	91	0	2	1	9	38	41
Ulcer of stomach or duodenum	47	0	0	0	4	19	24
Diarrhœa, under 2 years ...	14	14	0	0	0	0	0
Appendicitis	16	0	0	4	2	5	5
Other digestive diseases ...	136	5	4	1	9	48	69
Nephritis	198	0	0	1	12	50	135
Puerperal and post-abort. sepsis	4	0	0	0	4	0	0
Other maternal causes ...	13	0	0	0	13	0	0
Premature birth	96	96	0	0	0	0	0
Congenital malformations, birth injuries, infantile diseases ...	124	113	2	2	4	2	1
Suicide	58	0	0	0	14	32	12
Road traffic accidents	73	0	4	9	28	17	15
Other violent causes	156	19	2	5	29	18	83
All other causes	624	5	8	7	53	74	477
All causes	6324	301	52	47	409	1280	4235

TABLE II.

Causes of Death at all Ages in each District during the Year 1947.

RURAL DISTRICTS.

CAUSES OF DEATH.	AXBRIDGE.	BATHAVON.	BRIDGWATER.	CHARD.	CLUTTON.	DULVERTON.	FROME.	LANGPORT.	LONG ASHTON	SHEPTON MALLET.	TAUNTON.	WELLINGTON.	WELLS.	WILLITON.	WINCANTON.	YEOVIL.	TOTAL RURAL DISTRICTS.
Typhoid and paratyphoid fevers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cerebro spinal fever	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	4
Scarlet fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Whooping cough	0	0	0	0	0	0	0	0	1	0	3	0	0	1	0	0	5
Diphtheria	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Tuberculosis of respir. system..	8	6	8	3	3	1	1	5	7	5	5	2	2	4	3	5	68
Other forms of tuberculosis ...	2	1	4	0	2	0	1	0	4	1	4	1	2	2	1	0	25
Syphilitic diseases	0	0	1	0	2	0	0	0	0	1	0	1	0	1	1	2	9
Influenza	1	6	3	0	1	0	0	1	1	0	1	2	1	1	1	0	19
Measles	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Acute poliomyelitis and polio-encephalitis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Acute inf. encephalitis ...	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Cancer of buc. cavity & œsoph. (M), uterus (F)	10	3	2	1	3	0	1	3	6	3	3	4	2	4	4	7	56
Cancer of stomach & duodenum	6	11	9	6	9	1	4	4	9	6	6	2	3	8	11	7	102
Cancer of breast	10	8	2	6	5	1	0	3	5	1	3	1	4	5	2	5	61
Cancer of all other sites ...	25	23	20	18	15	0	7	7	35	11	15	10	13	15	22	20	256
Diabetes	2	1	1	1	3	2	1	1	2	1	0	0	0	0	1	4	20
Intra-cranial vascular lesions ...	48	31	24	21	30	8	9	30	40	19	35	13	11	35	26	42	422
Heart disease	108	93	72	34	60	16	47	50	79	50	67	14	43	49	81	65	928
Other diseases of circ. system...	14	6	4	5	8	3	2	7	11	8	8	8	10	11	11	12	128
Bronchitis	15	13	17	7	9	1	8	7	19	8	10	9	4	16	12	12	167
Pneumonia	1	11	6	3	7	0	6	3	8	6	8	5	8	6	6	2	86
Other respiratory disease ...	1	6	6	1	6	0	2	3	3	1	7	1	2	3	1	3	46
Ulcer of stomach or duodenum	2	1	4	1	1	0	1	0	4	3	0	0	0	2	0	1	20
Diarrhœa, under 2 years ...	1	0	1	0	0	1	0	0	1	0	0	1	0	0	0	2	7
Appendicitis	1	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	5
Other digestive diseases ...	6	5	6	7	1	1	6	4	4	3	2	3	2	6	8	2	66
Nephritis	14	11	12	1	7	0	1	7	12	4	7	1	6	4	5	6	98
Puerperal and post-abort. sepsis	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4
Other maternal causes ...	0	0	2	0	0	0	0	1	0	0	1	1	0	0	0	1	6
Premature birth	6	1	3	5	1	4	3	4	3	1	8	1	2	5	2	3	52
Congenital malformations, birth injuries, infantile diseases ...	9	7	2	1	7	2	3	1	7	3	1	5	3	4	6	5	66
Suicide	2	3	0	2	1	2	2	3	4	1	4	1	3	1	1	1	31
Road traffic accidents	8	4	2	1	3	1	0	4	3	1	5	2	0	2	6	3	45
Other violent causes	8	6	10	2	2	0	4	3	12	1	8	5	3	8	2	7	81
All other causes	30	19	28	23	7	12	13	19	37	20	24	16	22	27	14	31	342
All causes ...	341	278	249	152	196	56	122	170	317	159	235	110	147	221	228	248	3229

TABLE III.

Causes of Death at all Ages in each District during the Year 1947.

URBAN DISTRICTS.

CAUSES OF DEATH.	BRIDGWATER.	BURNHAM.	CHARD.	CLEVEDON.	CREWKERNE.	FROME.	GLASTONBURY.	ILMINSTER.	KEYNSHAM	MINEHEAD.	NORTON-RADSTOCK.	PORTISHEAD.	SHEPTON MALLET.	STREET.	TAUNTON.	WATCHET.	WELLINGTON.	WELLS.	WESTON-SUPER-MARE.	YEOVIL.	TOTAL URBAN DISTRICTS.	COUNTY TOTAL.
Typhoid and paratyphoid fevers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cerebro spinal fever	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	8
Scarlet fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
Whooping cough	3	0	0	0	0	0	0	0	1	0	1	0	0	0	2	0	0	0	0	0	7	12
Diphtheria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Tuberculosis of respir. system..	10	5	1	4	2	6	2	2	1	2	2	1	3	2	14	2	4	0	16	8	87	155
Other forms of tuberculosis ...	6	0	0	1	0	0	1	0	0	0	1	0	0	0	4	0	2	1	4	0	20	45
Syphilitic diseases	2	0	0	0	0	1	0	0	0	0	1	2	0	0	5	0	0	0	5	0	16	25
Influenza	4	1	0	3	0	0	0	0	0	1	4	0	0	1	0	0	0	0	0	1	15	34
Measles	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3	4
Acute poliomyelitis and polio-encephalitis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Acute inf. encephalitis ...	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2	3
Cancer of buc. cavity & œsoph. (M), uterus (F)	5	1	0	0	3	2	1	1	1	3	1	0	0	1	6	0	2	1	6	9	43	99
Cancer of stomach & duodenum	8	5	3	9	4	2	2	4	2	6	4	2	1	1	13	1	5	1	16	5	94	196
Cancer of breast	4	1	0	4	2	2	2	0	2	6	4	0	0	1	5	0	3	1	8	3	48	109
Cancer of all other sites ...	21	14	7	19	3	14	6	3	10	10	13	6	1	4	34	3	17	6	71	24	286	542
Diabetes	0	0	0	1	3	1	1	0	0	3	1	2	0	0	1	0	1	0	5	1	20	40
Intra-cranial vascular lesions ...	44	19	10	31	10	22	3	3	19	17	12	11	5	8	48	4	14	6	86	33	405	827
Heart disease	92	40	13	48	14	69	20	5	23	27	38	13	18	19	131	12	36	21	196	79	914	1842
Other diseases of circ. system...	8	3	3	2	3	5	12	4	1	6	2	4	3	1	12	2	6	1	9	21	108	236
Bronchitis	14	3	4	12	2	8	4	2	5	2	9	2	7	0	23	3	4	4	25	9	142	309
Pneumonia	12	1	1	3	3	2	0	1	1	8	8	1	3	3	14	3	3	4	18	10	99	185
Other respiratory disease ...	5	3	0	2	0	1	1	2	0	3	3	2	0	2	5	2	1	2	10	1	45	91
Ulcer of stomach or duodenum	0	2	0	1	1	0	0	1	0	1	0	2	1	1	4	1	2	1	7	2	27	47
Diarrhœa, under 2 years ...	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	2	7	14
Appendicitis	1	0	1	1	0	0	0	1	0	0	1	1	0	0	2	0	1	0	2	0	11	16
Other digestive diseases ...	11	0	1	4	1	3	2	0	0	6	3	2	4	0	9	1	5	1	13	4	70	136
Nephritis	5	6	1	10	1	2	5	1	3	2	11	0	1	2	10	1	6	3	25	5	100	198
Puerperal and post-abort. sepsis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other maternal causes ...	1	0	0	1	0	0	0	0	0	1	0	0	0	0	1	1	0	1	1	0	7	13
Premature birth	7	1	2	0	0	1	0	0	2	1	0	0	0	0	12	0	0	0	10	8	44	96
Congenital malformations, birth injuries, infantile diseases ...	5	2	1	2	1	3	4	1	2	4	2	2	2	3	7	1	2	2	7	5	58	124
Suicide	2	2	1	1	0	4	1	0	1	1	1	0	0	0	2	0	0	1	6	4	27	58
Road traffic accidents	3	1	2	0	0	2	2	1	0	1	3	0	0	0	2	0	3	0	7	1	28	73
Other violent causes	2	6	1	3	0	3	2	2	4	2	6	3	0	0	8	1	2	3	18	9	75	156
All other causes	20	4	9	38	8	19	3	3	4	10	13	5	5	2	29	8	9	10	56	27	282	624
All causes	299	121	61	200	62	173	74	37	82	123	144	61	54	52	407	46	128	70	630	271	3095	6324

TABLE IV.

Table showing, for each Rural District, the number of Births and Deaths, the number of Deaths of Infants, also the Birth Rate, Death Rate, and Rate of Infantile Mortality.

RURAL DISTRICTS.	Area. Acres.	Births.	Deaths.	Deaths under 1 year.	Population.	Birth Rate.	Death Rate.	Infantile Mortality Rate.
Axbridge	90,551	441	341	20	24,420	18.06	13.96	45.3
Bathavon	42,106	430	278	12	20,430	21.04	13.61	27.9
Bridgwater	86,769	390	249	13	18,920	20.61	13.16	33.3
Chard	54,600	245	152	7	11,650	21.03	13.05	28.6
Clutton	42,641	338	196	8	16,860	20.05	11.62	23.7
Dulverton	78,980	78	56	7	4,350	17.93	12.87	89.7
Frome	51,933	198	122	7	10,240	19.34	11.91	35.3
Langport	59,407	231	170	7	12,340	18.72	13.78	30.3
Long Ashton	46,515	434	317	12	23,890	18.17	13.27	27.6
Shepton Mallet	47,777	197	159	5	10,110	19.48	15.73	25.4
Taunton	70,682	320	235	16	17,880	17.90	13.14	50.0
Wellington	37,911	142	110	8	7,724	18.38	14.24	56.3
Wells	57,175	198	147	7	9,986	19.83	14.72	35.3
Williton	97,364	224	221	11	12,400	18.06	17.82	49.1
Wincanton	64,540	345	228	10	16,560	20.83	13.77	29.0
Yeovil	53,495	401	248	8	18,470	21.17	13.43	19.9
Totals of Rural Districts	982,446	4,612	3,229	158	236,230	19.52	13.67	34.2

TABLE V.

Table showing, for each Urban District, the number of Births and Deaths, the number of Deaths of Infants, also the Birth Rate, Death Rate, and Rate of Infantile Mortality.

URBAN DISTRICTS.	Area. Acres.	Births.	Deaths.	Deaths under 1 year.	Population.	Birth Rate.	Death Rate.	Infantile Mortality Rate.
Bridgwater	1,677	522	299	18	20,760	25.14	14.40	34.5
Burnham	2,246	171	121	4	8,751	19.54	13.83	23.4
Chard	1,030	98	61	3	4,743	20.66	12.86	30.6
Clevedon	3,296	145	200	4	9,413	15.40	21.25	27.6
Crewkerne	1,291	79	62	3	3,776	20.92	16.42	38.0
Frome	1,194	193	173	5	10,710	18.02	16.15	25.4
Glastonbury	5,019	96	74	4	4,948	19.40	14.95	41.7
Ilminster	531	52	37	2	2,480	20.97	14.92	38.5
Keynsham	4,170	129	82	5	7,307	17.65	11.22	38.7
Minehead	2,816	111	123	6	7,037	15.77	17.48	54.0
Norton-Radstock	3,370	227	144	7	11,690	19.42	12.32	30.8
Portishead	911	87	61	2	4,268	20.38	14.29	23.0
Shepton Mallet	2,278	98	54	4	4,816	20.35	11.21	40.8
Street	3,069	110	52	3	5,311	20.71	9.79	27.3
Taunton	2,428	665	407	25	31,570	21.06	12.89	37.6
Watchet	493	60	46	3	2,380	25.21	19.33	50.0
Wellington	2,211	136	128	2	7,020	19.37	18.23	14.7
Wells	1,336	111	70	2	5,750	19.30	12.17	18.0
Weston-s.-Mare	4,923	690	630	24	39,590	17.43	15.91	34.8
Yeovil	2,257	457	271	17	22,420	20.38	12.09	37.2
Totals of Urban Districts	46,546	4,237	3,095	143	214,740	19.73	14.41	33.7
Administrative County	1,028,992	8,849	6,324	301	450,970	19.62	14.02	34.0
England and Wales 1947	—	—	—	—	—	20.5	12.0	41.0

Mental Treatment Act, 1930.

The clinics are held regularly at the following centres:—

Name of Clinic.	Started.	Medical Officer.	No. of Sessions.	New cases seen.	Average attendance per Session.
Taunton and Somerset Hospital	April, 1931	Dr. K. C. Bailey ...	49	186	27
Weston-super-Mare Hospital	Dec., 1932	Dr. J. McGarvey ...	23	36	4
Yeovil and District Hospital	Nov., 1945	Dr. K. C. Bailey ...	52	120	17
Bridgwater Health Centre	May, 1938	Dr. K. C. Bailey ...	47	31	3
Minehead Hospital ...	May, 1946	Dr. K. C. Bailey ...	49	40	4
Mendip Hospital ...	July, 1948	Dr. J. McGarvey ...	52	16	2

This Table shows some expansion in this work; it is to be hoped that this trend will be continued.

Blind Persons Acts, 1920 and 1938.

The general work under these Acts is carried out by the Somerset Blind Association on behalf of, and with a grant from, the County Council. This Association also deals with necessitous Blind and their dependants. Six Home Teachers were employed by the County Blind Association during 1947. There were 19 Home Workers under the supervision of the Bristol Royal Blind Asylum Workshops. At the end of 1947 there were 865 persons in the County registered as blind, compared with 910 at the end of 1946. Certification by a medical practitioner with special experience in ophthalmology is required before registration. Where possible we make use of the County Oculists for certification purposes and during 1947 they examined 53 cases, 34 of whom were admitted to the register.

Prevalence and Control over Infectious and other Diseases.

Generally, the Isolation Hospital beds which were available were the same as for the previous year. The cases of notifiable diseases and their distribution are set out in table VI.

The hospital accommodation was found to be adequate for the needs. Staffing difficulties in various hospitals were acute, and this matter gives continual anxiety.

There was a marked increase in the number of cases of measles and of poliomyelitis. Diphtheria showed only 16 cases against 40 last year. Scarlet fever cases were less but whooping cough showed an increase of slightly over 100 cases.

Cancer. The County Council Scheme for which approval has been obtained continues to work as set out in the report for 1944. This, however, is a limited scheme, and, owing to local difficulties, it has not been possible to bring about all the suggestions made in the original draft arrangements.

The co-ordinating machinery embracing our neighbouring local authorities and the Bristol Royal Hospital continues to operate but progress remains slow.

In the present year, the number of in-patients treated under this scheme in Somerset was 400 while the number of out-patients was 1,342; the cost was approximately £12,000.

Finally, it is clear that, when it is practical, sub-treatment centres must be established at certain points in Somerset. The present long travelling distances impose a great hardship on the patients, and this point requires a great deal of attention when the new arrangements are devised.

In this connection it is hoped to commence additional sub-centres in Taunton, Weston-super-Mare and Bridgwater during 1948.

NOTIFICATION OF INFECTIOUS DISEASES.

TABLE VI.

	Measles.	Scarlet Fever.	Diphtheria.	Enteric and Paratyphoid Fevers.	Puerperal Pyrexia.	Ophthalmia Neonatorum.	Cerebro-spinal Meningitis.	Dysentery.	Whooping Cough.	Pneumonia.	Acute Poliomyelitis.	Encephalitis Lethargica.
URBAN												
Bridgwater	157	5	0	0	6	0	3	0	19	5	3	0
Burnham	191	4	0	0	4	1	1	2	17	3	1	0
Chard	196	1	0	0	7	0	0	0	22	5	0	0
Clevedon	141	0	0	0	1	0	0	0	1	7	0	0
Crewkerne	43	0	0	0	2	0	1	0	2	1	0	0
Frome	178	6	0	0	0	1	1	0	30	2	3	0
Glastonbury	7	1	0	0	0	0	0	0	9	4	1	0
Ilminster	56	4	0	0	0	0	0	0	11	0	2	0
Keynsham	133	1	0	0	0	0	0	0	81	3	0	0
Minehead	7	2	0	0	0	0	0	0	9	3	1	0
Norton-Radstock	48	15	0	0	1	0	1	0	29	12	1	0
Portishead	18	0	0	0	1	0	0	0	0	2	0	0
Shepton Mallet	73	3	3	0	3	0	1	0	47	0	0	0
Street	7	0	0	0	1	0	0	0	36	4	1	0
Taunton	479	44	3	2	28	1	2	1	83	11	1	0
Watchet	0	1	0	0	0	0	0	0	0	0	1	0
Wellington	34	2	0	0	4	0	0	0	6	0	0	0
Wells	4	4	0	0	0	0	0	0	0	2	0	0
Weston-super-Mare	262	71	2	1	2	0	2	0	53	38	7	0
Yeovil	415	7	1	0	7	3	1	0	33	16	0	0
RURAL												
Axbridge	129	54	1	0	0	0	0	0	62	21	2	0
Bathavon	80	12	0	0	0	0	0	0	51	1	3	0
Bridgwater	133	9	0	0	3	0	5	0	41	6	4	0
Chard	237	7	0	0	0	0	0	0	54	8	1	0
Clutton	183	4	0	0	0	0	0	0	39	15	2	0
Dulverton	81	0	0	0	0	0	0	0	24	10	0	0
Frome	116	2	0	0	0	1	0	0	17	6	5	0
Langport	108	7	0	0	2	0	0	0	24	8	3	0
Long Ashton	204	15	2	0	1	0	3	6	81	22	5	0
Shepton Mallet	160	5	2	0	2	0	1	0	30	3	2	0
Taunton	229	5	0	0	3	2	1	1	64	25	0	0
Wellington	91	1	0	0	1	0	0	0	2	0	1	0
Wells	10	0	0	0	0	1	1	4	11	1	1	0
Williton	93	19	0	0	2	0	1	0	16	6	9	0
Wincanton	110	0	1	0	2	1	4	0	36	16	1	0
Yeovil	382	6	1	0	1	2	1	0	24	4	3	0
Urban Districts	2449	171	9	3	67	6	13	3	488	118	22	0
Rural Districts	2346	146	7	0	17	7	17	11	576	152	42	0
Administrative County	4795	317	16	3	84	13	30	14	1064	270	64	0

VENEREAL DISEASES.

The attendances of Somerset cases at the various clinics for the past three years have been as follows:—

Clinic.	New Cases.				Attendances.			
	1945	1946	1947	Increase or decrease during 1947.	1945	1946	1947	Increase or decrease during 1947.
Bath	46 (33)	75 (45)	53 (27)	−22	836	1,188	896	−292
Bristol	120 (75)	200(133)	160 (97)	−40	775	1,567	1,350	−217
Taunton	80 (55)	127 (59)	97 (55)	−30	1,263	1,207	1,023	−184
Yeovil	137 (79)	140 (88)	81 (52)	−59	831	965	595	−370
Bridgwater ...	109 (67)	126 (59)	93 (49)	−33	1,163	1,014	825	−189
Frome	28 (17)	26 (17)	21 (16)	− 5	194	275	121	−154
Minehead	15 (14)	18 (10)	16 (7)	− 2	139	136	146	+ 10
Weston-super-Marc	158(115)	150(106)	132 (77)	−18	1,631	1,234	1,090	−144
All Clinics	693(455)	862(517)	653(380)	−209	6,832	7,586	6,046	−1,540

The table distinguishes between the cases which are definitely venereal and those non-venereal who attended for investigation and diagnosis, the second group figures being in brackets. It will be seen that the figures show a decrease in cases and attendances.

During the year the following examinations were made:—

Samples.	For Clinics and Hospitals.	For Medical Practitioners.	Total.
Wasserman ...	912	1,000	1,912
Gonococcus ...	3	13	16
Spirochetes ...	1	0	1
Fixation and other tests ...	217	397	614
	1,133	1,410	2,543

TUBERCULOSIS.

Year.	Phthisis Death rates.			Other Tuberculous Diseases			Tuberculosis Death-rate.	Deaths in a population of 406,000.	
	Rural.	Urban.	County.	Rural.	Urban.	County.	County.	Phthisis.	All Tuberculosis
1947	0.29	0.41	0.34	0.11	0.09	0.10	0.443	140	180

TABLE VII.

New cases of tuberculosis and deaths from the disease in the County during 1947.

Age Periods.	New cases.				Deaths.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M	F.	M.	F.	M.	F.	M.	F.
0—1	1	0	1	1	0	1	0	1
1—5	3	3	13	8	0	0	6	2
5—10	10	8	26	12	0	0	5	3
10—15	11	11	8	10				
15—20	36	33	4	4	49	46	10	10
20—25	44	60	3	4				
25—35	105	83	5	8				
35—45	60	44	11	9				
45—55	42	20	6	4	34	10	2	4
55—65	26	9	1	1				
65 and upwards	11	6	1	0	11	4	0	2
Totals	349	277	79	61	94	61	23	22

This table shows there were 101 more pulmonary and 55 more non-pulmonary notifications than in the provious year. There were 4 fewer pulmonary but 10 more non-pulmonary deaths. The tuberculosis death rate shows little change from last year.

TABLE VIII.

Tuberculosis Notifications and Deaths.

URBAN DISTRICTS.	Primary cases notified.		Deaths during the year from Pulmonary Tuberculosis.	Deaths during the year from other varieties of Tuberculosis.	RURAL DISTRICTS.	Primary cases notified.		Deaths during the year from Pulmonary Tuberculosis.	Deaths during the year from other varieties of Tuberculosis.
	Pulm.	Non-Pulm.				Pulm.	Non-Pulm.		
Bridgwater	70	13	10	6	Axbridge	23	6	8	2
Burnham	12	2	5	0	Bathavon	26	5	6	1
Chard	7	4	1	0	Bridgwater	34	5	8	4
Clevedon	9	4	4	1	Chard	10	4	3	0
Crewkerne	0	0	2	0	Clutton	14	4	3	2
Frome	10	1	6	0	Dulverton	16	0	1	0
Glastonbury	6	1	2	1	Frome	7	2	1	1
Ilminster	2	0	2	0	Langport	9	7	5	0
Keynsham	11	2	1	0	Long Ashton	37	13	7	4
Minehead	27	1	2	0	Shepton Mallet	10	2	5	1
Norton-Radstock	5	0	2	1	Taunton	30	5	5	4
Portishead	5	1	1	0	Wellington	4	6	2	1
Shepton Mallet	6	2	3	0	Wells	5	4	2	2
Street	4	1	2	0	Williton	34	1	4	2
Taunton	63	12	14	4	Wincanton	10	4	3	1
Watchet	11	2	2	0	Yeovil	5	5	5	0
Wellington	11	1	4	2					
Wells	4	2	0	1					
Weston-s-Mare	59	12	16	4					
Yeovil	30	6	8	0					
Totals	352	67	87	20	**Totals**	274	73	68	25

TABLE IX.

Admissions to Sanatoria during 1947.

Sanatorium.	Men.	Women.	Children.	Total.
Quantock	97	66	0	163
Chard	12	55	0	67
Taunton	29	14	0	43
Wincanton	24	0	0	24
Musgrove Park	37	0	0	37
Compton Bishop	0	0	48	48
Bath Orthopædic Hospital ...	3	3	10	16
Other non-county beds ...	31	12	3	46
	233	150	61	444

TABLE X.

Dispensary Attendances.

	Persons treated at Dispensaries during 1947.	Total Dispensary Attendances 1947.
Bath (County)	24	457
Bridgwater	259	2,089
Bristol	30	692
Chard	56	560
Clevedon	60	577
Glastonbury	78	194
Minehead	138	991
Radstock	111	551
Shepton Mallet	45	159
Taunton	1,106	3,766
Weston-super-Mare	123	1,423
Wincanton	5	108
Yeovil	60	322
Totals ...	2,095	11,889

Quantock Summer Camp. The Camp was not held this year.

Tuberculosis Allowances Scheme. Up to the end of the year 648 cases have been accepted since the adoption of the Scheme in Somerset on 4th July, 1943. Payment of allowance has ceased, however, in 440 of these cases owing to return to work or for other reasons.

Tuberculosis Officer's Clinical Report for 1947.

Dr. Kitcat, Chief Tuberculosis Officer, has written the following report:—

As will be seen from the figures, 1947 showed a considerable increase over 1946 in the number of cases of Pulmonary Tuberculosis. There is, also, a very marked increase in the number of cases referred for investigation, this being particularly marked at Taunton, Bridgwater and Weston-super-Mare. This increase is expected to continue under the National Health Service.

Up to the present it has been possible to maintain all the existing beds in your sanatoria, but nursing staff continues to decrease rather than increase and the staffing of beds for Tuberculosis is likely to remain a major anxiety for some years to come.

There is a marked increase in the number of young children found to be suffering from active Pulmonary Tuberculosis, and a children's ward for such cases is urgently required at Musgrove Hospital. So far, however, it has not been possible to organise this owing to the impossibility of getting nursing staff.

The demand for beds for advanced cases of Pulmonary Tuberculosis remains as heavy as ever and, once again, it is impossible to provide enough of these owing to lack of nursing staff.

To sum up—while deaths from Tuberculosis continue to decrease there is a marked increase in Tuberculosis throughout the country and this is likely to continue until our housing and dietary difficulties are over.

Sanatorium or hospital treatment was given to 444 cases. In addition, many open-air shelters were provided, those in actual use on December 31st, 1947, being 45, which is the number of shelters available. Milk, for a period of six or eight weeks was provided in 92 cases, dental treatment for 2 cases, X-ray examinations for 5,965.

Treatment by the use of artificial pneumothorax has been continued and the cases dealt with are shown in the following table:—

	At Dispensary or home of patient.	At Institutions.	Total.
Primary inductions	0	31	31
Refills	1,570	1,568	3,138

The new cases seen numbered 2,750, and were classified as follows:—

PULMONARY TUBERCULOSIS.	T.B. Negative	495	
	T.B. Positive Stage 1 ...	17	
	T.B. Positive Stage 2 ...	176	
	T.B. Positive Stage 3 ...	44	
			732
NON-PULMONARY TUBERCULOSIS.	Bones and Joints ...	30	
	Abdominal	14	
	Other Organs	12	
	Peripheral Glands ...	49	
			105
Not Tuberculous			1,862
Diagnosis not complete on 31st December, 1947			51
			2,750

Quantock Sanatorium. The Medical Superintendent, Dr. V. C. Martyn, has furnished the following report:—

The Sanatorium has been open for the reception of 111 cases (66 males and 45 females) throughout the year. During this time 163 cases have been admitted, of whom 97 were males and 66 females. 158 patients were discharged, 93 males and 65 females. There were 4 deaths. The average stay for male patients was 244 days and for female patients 250 days. This is an average of 35 weeks for each patient.

Artificial pneumothorax treatment was carried out in all suitable cases. There were 36 inductions, 1,021 refills for in-patients and 140 for out-patients.

X-ray. 502 films were taken and 549 cases were screened.

9 cases were operated on for Phrenic crush at Minehead Hospital, 12 cases received Sanocrysin treatment. There were 4 aspirations and replacements by air.

1 case was sent to Frenchay Hospital for thoracoplasty.

RESULTS OF TREATMENT.

WEIGHTS.

Increase in weights in Kilos. (1 Kilo. = 2.2 lbs.)

	Less than 6.	*6—12.*	*12 and over.*	*Total.*
Males ...	36	18	6	60
Females ...	32	15	4	51

The average gain in weight of
111 patients weighed on discharge = 5.36 kilos.
60 male patients weighed on discharge = 6.41 ,,
51 female patients weighed on discharge = 5.29 ,,

The average loss in weight of 30 patients weighed on discharge = 2.25 ,,

15 patients were not weighed on discharge, including 5 who died. (2 patients weighed exactly the same on discharge as on admission.)

Working capacity of patients on admission and discharge.

	Full Working Capacity.		*Fit for light work.*		*Unfit for work.*	
	Admission.	Discharge.	Admission.	Discharge.	Admission.	Discharge.
Males ...	0	14	0	20	93	59
Females ...	0	18	0	10	65	37

On admission all patients were unfit for any work. On discharge 20.25 per cent. of all patients were fit for full work; 19.00 per cent. for light work; and 60.75 per cent. were unfit for work.

Classification on admission of patients discharged during 1947.

					Tubercle Bacilli.			
					Positive.		Negative.	
Classification.	M.	F.	Total.	%	M.	F.	M.	F.
Early	17	15	32	20.25	0	1	17	14
Intermediate ...	59	43	102	64.56	26	5	33	38
Advanced	17	7	24	15.19	16	7	1	0

Complications presented by patients were:—Larynx, Pleura, Laryngitis, Spine, Albumen, Rib Abscess, Ischio Rectal Abscess, Graves Disease, Bronchiectasis.

Chard Sanatorium. During the year the cases admitted were 54 pulmonary cases and 13 non-pulmontry (55 female, 12 male).

From the female pulmonary wards there were 40 discharges and 5 deaths; from the female surgical wards 9 discharges. On the male side there were 11 pulmonary cases discharged. Three female non-pulmonary cases were admitted for observation—two were discharged as not tuberculous and one left before diagnosis was complete.

X-ray. 194 films were taken and 678 screenings made. Collapse treatment was again used. 13 inductions and 900 refills for artificial pneumothorax were done during the year.

Dr. Pascall thinks it unlikely that he will do pneumo peritoneum inductions at Chard as he has not been impressed with the results so far obtained.

Compton Bishop Children's Home. During the year 28 boys and 20 girls were admitted, and of these 17 boys and 18 girls were under 10 years of age. The average stay for "definite" (notified) cases was 25 weeks, and for observation cases 23 weeks. The discharges numbered 38, 25 boys and 13 girls, who will be kept under regular supervision at the County Clinics.

TABLE XI.

QUANTOCK SANATORIUM.

Duration of Treatment and Condition on Discharge.

		Under 3 months.			3—6 months.			6-12 months.			More than 12 months.			Totals.			Grand Totals.
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
Class TB Minus.	Quiescent	2	1	0	5	4	0	27	27	0	3	3	0	37	35	0	72
	Not quiescent	0	3	0	0	1	0	2	1	0	1	1	0	3	6	0	9
	Died in Institution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class TB + Group 1.	Quiescent	0	0	0	0	0	0	1	0	0	0	2	0	1	2	0	3
	Not quiescent	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1
	Died in Institution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class TB + Group 2.	Quiescent	0	0	0	2	0	0	15	7	0	2	2	0	19	9	0	28
	Not quiescent	0	0	0	0	0	0	5	2	0	8	1	0	13	3	0	16
	Died in Institution	0	1	0	0	0	0	0	0	0	0	1	0	0	2	0	2
Class TB + Group 3.	Quiescent	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Not quiescent	1	0	0	6	1	0	3	3	0	1	0	0	11	4	0	15
	Died in Institution	1	0	0	0	0	0	0	1	0	0	0	0	1	1	0	2

In 57 out of 85 men discharged the disease was quiescent = 67.06 per cent. In 46 out of 63 women discharged the disease was quiescent = 73.02 per cent. Patients who were at the Sanatorium for less than 28 days have been excluded from the above figures.

MATERNITY AND CHILD WELFARE.

The Midwifery Service. 357 certified midwives notified their intention to practise during the year, 310 working under Committees and 47 independent.

Out of the 246 midwives who worked under the S.C.N.A., 27 resigned, leaving 219 still at work. Of the 29 who notified under independent Associations 7 resigned, leaving 22 still at work. Of the 47 trained midwives working on their own 11 had no midwifery or maternity cases, which left 34 actually at work. 13 worked only as maternity nurse under a medical man. The percentage of 1947 births in the County attended by the nurses as midwives was 49.7.

Summary for all Midwives during the Year.

Cases attended as midwife	4,538
Cases attended as monthly nurse	3,383
Doctor sent for for mother	1,710
Doctor sent for for child	257
Stillbirths (in domiciliary practice)	36
Death of mother	6
Death of child (in domiciliary practice)	41

The midwives working under Committees attended 3,702 midwifery and 2,201 maternity cases; those working independently 427 midwifery and 669 maternity cases. The Association midwives showed an increase of 482 midwifery and 345 maternity cases; the independent midwives an increase of 287 midwifery and a decrease of 144 maternity cases.

Only four independent midwives had more than 25 midwifery cases. 13 of these midwives had no midwifery cases, but between them attended 173 maternity cases, while 11 had no cases at all. The 10 midwives in the Maternity Units attended 300 cases. Doctors were called in 1,710 times for the mother and 257 for the child; a percentage of 43.6.

Six deaths of mothers were recorded during the year in which midwives were in attendance as midwives.

Ante-Natal and Post-Natal Work. Under the ante-natal and post-natal scheme the total numbers of Somerset mothers ante-natally examined and of cases post-natally examined were respectively 1,878 and 229, at a total cost to the County of £1,373. The total number of examinations was respectively 2,390 and 294. The adoption by the County Council of the revised B.M.A. scale of fees to general practitioners has doubled the cost of this service.

Consultants for Midwifery Scheme. Under the County scheme 159 cases were accepted and dealt with by the consultant officers.

Assisted Admissions to Maternity Homes or Hospitals. During the year 551 applications were received for assisted admissions to a maternity home or hospital. The County Council accepted responsibility for 473 of these cases, a decrease of 15 over the previous year. The reasons for need of institutional treatment were:—

Ante-partum hæmorrhage	18
Actual or anticipated obstetric difficulty	198
Intercurrent disease	46
Housing or social	99
Toxæmia	76
Abortions	18
Post-natal complications	15
Other conditions	3
	473

Of the above, 32 Somerset women were admitted to Musgrove Park Hospital for confinement between October and December, 1947.

Dental Scheme for Expectant and Nursing Mothers.

This Scheme operates partly through private dental practitioners and partly through dental clinics staffed by officers of the County Council.

Private Practitioners' Cases. Of the 8 denture cases uncompleted at the end of 1946, 3 were satisfactorily fitted and the patients are making proper use of their dentures; the remaining 5 did not attend for further treatment. During 1947, 82 applications were received and 73 accepted. Of these patients, however, 3 made private arrangements, and 22 did not proceed with treatment, leaving 48 to be dealt with under the County scheme. 13 full dentures and 14 part dentures were fitted and extractions or other dental work performed for 11 patients. In each case a report has been received from a Medical Officer or Health Visitor that the work was completed or that dentures were satisfactory and in use. In the remaining 9 cases dental work is not completed and the patients are still attending for treatment.

County Dental Clinic Cases. Very little dental treatment was undertaken during 1947 for these cases owing to the continued lack of suitable premises and the heavy demands on the dental officers from the school service.

The small statistical table given below shows some increase over the previous year but the service is obviously inadequate.

Every endeavour is being made to improve this service but the obligations imposed by the Health Act for the provision of a special priority service for this class of the population cannot possibly be met until more clinics are available.

More complete details will be available for the 1948 report, which will include pre-school children, but it is apparent that a reasonably efficient service will not be established until at least 1949.

High priority in providing dental clinics is vitally essential to the development of this service.

Table of Treatment given to Maternity & Child Welfare Patients by County Staff during 1947.

No. of cases.	Extractions.	Fillings.	Scalings.	General Anæsthetic.	Denture Cases.
346	514	82	25	54	104

Maternal Mortality.

	1918	1928	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947
Puerperal Sepsis ...	8	14	4	3	5	6	3	6	6	3	1	4
Other Accidents and Diseases of Pregnancy & Parturition	20	12	10	1	10	15	16	18	10	11	6	13
Total ..	28	26	14	4	15	21	19	24	16	14	7	17
Rate per 1,000 Births	5.14	4.36	2.59	0.71	2.57	2.72	2.44	3.13	1.90	1.84	0.86	1.87

Puerperal Sepsis.

During the year 90 cases of Puerperal Pyrexia were notified. Arrangements have been made with different Hospitals to take in County cases, and facilities are offered. During 1947 36 cases were so admitted. The special unit at the Taunton Isolation Hospital again was of very great service.

Care of Infants and Children under School Age.

This work is mainly carried out by home visiting through the appointed Infant Visitors, and supervised by the County Superintendent and staff.

(*a*) **Visits and Advice in the Homes.** During the year 8,156 births were referred to the Infant Visitors, 4,726 being in rural and 3,430 in urban areas. The service is a most important part of the scheme.

(*b*) **Infant Welfare Centres.** At the end of 1947 the Centres in the County, exclusive of those at Yeovil, Taunton and Weston-super-Mare which were outside the County Scheme, were the following:—Axbridge, Backwell, Banwell, Bathford, Bishopsworth, Bishop Sutton, Bridgwater, Bruton, Burnham, Chard, Chew Magna, Chew Stoke, Chewton Mendip, Cleeve, Clevedon, Coleford, Combe Down, Compton Martin, Creech, Crewkerne, Curry Rivel, Ditcheat, Dulverton, Edington, Evercreech, Farmborough, Faulkland, Frome, Glastonbury, Harptree, Highbridge, High Littleton, Holcombe, Ilminster, Kelston, Keynsham, Kilmersdon, Leigh-on-Mendip, Long Ashton, Mells, Merriott, Midsomer Norton, Milborne Port, Minehead, Nailsea, Nunney, Paulton, Peasedown, Pill, Portishead, Priddy, Radstock, Shepton Beauchamp, Simonsbath, Stanton Drew, Street, Timsbury & Tunley, Wellington, Wells, Westbury-sub-Mendip, Wiveliscombe, Wookey, Woolavington, Wraxall, Wrington, Yatton, and Yeovil (Wraxhill Road).

The Centres at Bridgwater, Dulverton, Midsomer Norton, Radstock and Bishopsworth are directly controlled by the Council with the valuable assistance of local Committees; and the County Council also make grants towards the expenses of most of the others. Dr. Wilcox of the County staff was the Medical Officer for the Chew Magna and Farmborough groups of centres, Dr. Cooke for Bishopsworth, Dr. Denham for Mells, Leigh-on-Mendip, Timsbury and Tunley, Dr. Williamson for Chewton Mendip, Westbury and Wookey, Dr. Mary Hague for Wiveliscombe and Dr. Smithies for Dulverton.

Bridgwater Infant Welfare Work.

During 1947, the number of births notified in the Borough (including 12 still-births and cases later transferred to other districts) was 838. 18 babies died under one year, a rate of 34.5 deaths per 1,000 births. Number of children on visiting list 1,782, total visits paid to infants 6,252.

Centre. Number of individual children who attended; 560; individual mothers, 490; average attendance per session—children under 1 year 22, 1 to 5 years 9; average attendance per session of mothers, 30; number of attendances—children 3,410, mothers 3,328; number of medical consultations for infants, 1,578; for women, 350; sessions held 110. The medical work was carried out by Dr. Mary Hague. No regular ante-natal examinations are now carried out at this centre.

Radstock and Midsomer Norton Infant Welfare Centres.

These centres are managed by the County Council with voluntary assistance. Sessions are held twice monthly in each centre, *i.e.*, at the Victoria Hall, Radstock, and the Women's Institute Hut, Welton, Midsomer Norton. Medical consultations are held at alternate sessions and educational programmes are arranged for intermediate dates. Dr. Hilda Ashworth, a local practitioner, acts as Medical Officer, attending once a month. The appointed Infant Visitors (the district nurses) attend and the work is carried on in direct relation to the existing Infant Welfare schemes.

Bishopsworth Infant Welfare Centre.—This centre was opened in March, 1946, under a voluntary Committee. Dr. M. J. Cooke, a whole-time medical officer of the county staff, took over the medical consultations from the beginning of December. During 1947 the centre continued to function as a County Clinic, with increased attendances.

The clinic is open each week and Dr. Cooke visits at alternate sessions.

Dulverton Infant Welfare Centre.—With the co-operation of the District Nursing Association a welfare centre was established in July, 1947, under a voluntary committee, including local mothers, to serve Dulverton and district. The centre was accepted from the first as a county clinic and Dr. Smithies acts as Medical Officer.

The Council authorised payment of transport costs involved in conveying mothers and children to and from the outlying areas, and in this way a satisfactory attendance has been built up.

The figures for these centres are as follows:—

	Radstock.	Midsomer Norton.	Bishopsworth.	Dulverton.
Sessions held	22	22	48	10
Individual children who attended	180	202	175	89
Individual mothers who attended	175	171	170	82
Average attendance per session of children—				
Under 1 year	15	27	18	15
1—5 years	39	23	5	12.5
Average attendance per session of mothers ...	52	43	21	24
Number of attendances of children—				
Under 1 year	329	592	851	152
1—5 years	849	507	232	126
Number of attendances of mothers	1170	960	1008	240
Number of medical consultations—				
Children	139	136	434	150
Mothers	—	—	429	—
Individual children attending centre born in 1947	51	69	52	23
Individual children attending centre born previous to 1947	129	133	81	66
Number of infants attending for the *first time* during 1947—				
Under 1 year on first attendance	73	84	60	44
Aged 1—5 years on first attendance ...	107	17	15	45

Banwell and Kewstoke Infant Welfare Centres.

The Banwell Centre is held normally once a month with Dr. Evans of the County Health Department as Medical Officer. No local management committee has been formed, but the District Nurse is regularly in attendance. The Kewstoke Centre held very infrequent sessions.

The figures for Banwell are as follows:—

Sessions held	10
Attendances of children under 1 year ...	228
New cases under 1 year	73
Attendances of children 1—5 years ...	94
New cases 1—5 years	8

(*c*) **Treatment and Supervision of Special and Abnormal Children.** Infant Visitors are encouraged to notify children showing any abnormality or needing extra help, and in previous years extra nourishment grants (Maltoline and Iron) have been extensively used and follow-up enquiries regularly made. Owing to pressure of clerical work and also to the fact that far fewer children need extra nourishment grants from this department, there is not much to report under this section.

Enquiries and correspondence can be grouped under the following heads:—Orthopædic conditions 112; Oculist 68, Blind 1, Ear, Nose and Throat 26. Needing special care owing to ignorance or neglect 13. Mental defects 5. Rickets, catarrhal conditions, etc. 4. Debility and prematurity 33, tuberculosis 10, backward in speech, walking, etc. 7. Extra nourishment needed and given 23; hare lip and cleft palate 4; eczema, skin defects, etc. 3; various 17. Total 326.

The Orthopædic heading includes slight postural defects which may be improved by simple advice, and also surgical conditions treated under the Orthopædic Scheme where the Infant Visitor is kept informed, so that in her visiting she may take an intelligent interest and co-operate in any treatment necessary.

(*d*) **Baby Hospital, Bridgwater.** The following is a summary of the year's work:—Number in Ward, January 1st, 4; admitted during 1947, 25 (including one re-admission); total 29. The reasons for admission were, as before, mainly nutritional difficulties and prematurity. Average length of stay of cases discharged in 1947—9 weeks. 18 made satisfactory improvement, 4 some improvement, and 1 died. 6 remained in the Ward at the end of the year.

Musgrove Park Hospital—Children's Unit.

This unit was opened on March 1st, 1946, under the direction of Dr. Hamilton, as Senior Pædiatrician. During 1947 129 cases of varied types of illness were admitted for treatment.

This unit provides a first-class treatment and investigation centre for children of all ages, and its contribution to child medicine in Somerset is outstanding and unique.

Ophthalmia Neonatorum.

During 1947, 13 cases were notified. Of these 7 cases were sent to hospital. The distribution of the cases is shown in Table VI. All the cases in which treatment was completed showed vision unimpaired at the time of the report.

Birth Control.

During the year the number of applications received by Dr. Griffin from various sources for advice and assistance was 47. Four of these cases were referred to clinics and the rest to private doctors.

Care of Premature Infants and of Illegitimate Children.

Facilities for the care of premature or immature infants are:—

(1) Small 8-cot ward at Mary Stanley Home, Bridgwater, also occasionally used for difficult feeding cases and mal-nourished infants under 1 year. It was decided during the year to improve the ward equipment by providing four premature baby cots, one ward-screen and two wicker transport baskets. Delivery of the cots is still awaited.

(2) Immature infants born in maternity homes or hospitals and unfit to return home with their mothers are either transferred to Bridgwater or their maintenance and treatment in hospital is paid for by the County Council on request.

35 neo-natal deaths due to prematurity occurred in 1947.
13 of these died in hospital or nursing home.
22 of these died in their own homes.

The scheme for the care of illegitimate children, which has been in operation since September, 1944, has grown considerably during the last twelve months, and still continues to be of maximum service to those needing help.

Nursing and Maternity Homes.

At the end of the year the number of Homes on the Register was 50. They were all visited from time to time by Dr. Griffin, Miss Nobes or her assistants to see that the premises were in order and the requirements of the County Council complied with as regards management.

Six new registrations were effected during 1947.

Child Life Protection.

The children on our Register at the end of 1947 numbered 228, and as regards methods of payment may be grouped as follows:—Weekly payments 49, monthly payments 5, per term 81, otherwise paid for or not stated 93.

The number of foster mothers with one child only is 63, with two children—8, with three children—4, with four children—1, with over four children—13.

The foster mothers who run a regular baby home are therefore few, and those with more than 4 infants in their care at the end of 1947 resided one each at Porlock (27 children), Otterhampton (17), Templecombe (14), Sparkford (11), Orchard Portman (10), Shepton Mallet (9), Burnham-on-Sea (9), Congresbury (8), Clevedon (7), Clevedon (6), Bawdrip (5), Crewkerne (5), and Clevedon (5).

Residential Nurseries.

There are at present four residential nurseries—Holnicote, Yarlington and Westlands, for long-stay cases, and Bawdrip for short-stay cases. Martock Nursery was closed in March and it is hoped to open another nursery shortly to take its place. All the nurseries have been full to capacity and there is an urgent need for more short-stay accommodation. These nurseries reach a very high standard of service and they have received much praise from official visitors.

Day Nurseries.

At the commencement of the year five day nurseries were in operation, one at Bridgwater Friarn Street) for children aged 0—2 years, one at Frome for children aged 2—5 years and three (Keynsham, Chard and Street) for children aged 0—5 years.

The Chard and Keynsham Nurseries were later transferred to the Education Committee (Chard on the 1st April and Keynsham on the 1st September) and re-constituted as Nursery Schools. The Education Committee however, has allowed part of the Keynsham Nursery to be used as a crêche to cater for children aged 0—2 years until the negotiations for the purchase of new premises can be completed. It is expected that the new Keynsham Crêche will be opened early in the coming year.

ORTHOPÆDIC SCHEME.

The County Scheme, and the results of working during 1947, are described in considerable detail in my report for 1947 as School Medical Officer.

WATER SUPPLIES.

More progress was seen in the extension of main water supplies than in previous post-war years. Although no major schemes were carried out several villages have been given a piped supply and other areas have had their supplies augmented.

Although no serious shortage was experienced during the year, local authorities are appreciating the extent of future needs and much exploratory work was carried out. The consumption on new housing estates and the increasing demands of agriculture and industry have to be met. Producers of designated milk are increasing fairly rapidly. The system of lay farming means more field troughs and so consumption increases year by year and tends to strain existing resources. Several authorities have in hand bold schemes, which, when they mature, will afford relief to existing sources of supply which are strained to the utmost. Apart from sufficiency at the source, it is necessary to provide for storage as a safeguard in case of a breakdown.

For a number of years Langport and Wells Rural Districts have been the two worst watered districts in the County, closely followed by Frome Rural. The position now seems brighter, particularly with regard to Langport. Ministry consent has now been received and it is hoped that within two years the eastern parishes of the district will have a piped supply. Schemes are well advanced with regard to improved supplies to the Wells and Frome districts.

Several districts have not yet submitted schemes for the comprehensive supply of water to their respective areas under the Rural Water Supplies and Sewerage Act, 1944. These should be sent in without delay.

The Water Abstraction Regulations, 1947, made under the Water Act, 1945, came into operation on November 1st. These regulations require any class of person to keep such records and furnish such returns as to the quantity and quality of water abstracted by them from any source.

The regulations do not apply in a case where water is abstracted by an individual for the domestic purposes of his household only, or where underground works are capable of yielding less than 20,000 or 50,000 gallons daily in certain scheduled areas.

The regulations are intended to assist in the assessment of underground resources.

Appended are the details of works carried out during the year by the various district authorities together with schemes that are under consideration.

Urban Areas.

Bridgwater. Extensions carried out during the year were as follows, to Sunny Bank and Rhode Lane new Housing Estate.

Sydenham new Housing Estate.

Park Lane, Cannington, for 250 yards to serve 2 farms and 4 houses.

Kraft Factory, The Clink.

Trial borings started on the new impounding reservoir at Radlett; estimated capacity 500,000,000 gallons.

Works under consideration include:—Extension of mains at Chilton Trinity; high level reservoir at Durleigh; improvements at the Durleigh and Ashford reservoirs.

Burnham No new works carried out. Measures have been taken respecting the detection of waste water.

Chard. Supplementation of the high level supply is under consideration.

Glastonbury. High level main extended to supply a new building site on the north side of Tor View Avenue.

Distribution mains laid to Council's Housing Site at Windmillfield Hill.

Minehead. The reservoir dam and auxiliary works at Nutscale were completed during the year at an estimated cost of £2,500.

Norton Radstock. To maintain a continuous supply during peak periods in the Writhlington area, a storage and distribution tank has been installed with satisfactory results.

Portishead. The Portishead Water Company have been approached to give estimates for supplying the high level district of Down Road.

Shepton Mallet. Main extended at Kingsland Road to afford a supply to 10 new bungalows on the Council's Housing Estate at Ridgeway. A further extension of the main was made at West Shepton, of about 250 yards.

Street. A bulk supply was afforded to Wells R.D.C. for the parish of Walton.

An improvement in the method of supply is under consideration.

Taunton. Normal extensions to meet demands of new housing sites. The Quants reservoir will be completed as and when the official permits can be obtained respecting labour and materials.

Watchet. Extension of main to new Housing Site at Woodland Road. Consideration being given to the provision of increased storage capacity and a new reservoir at a higher level.

Wellington. Extension of 3in. mains for 333 yards at Blackwell Road, Rockwell Green and 1,193 yards at Howard Road and Parklands Road have been carried out to serve new housing estates.

The trial borehole at Pitt Farm gave satisfactory results in quantity and quality and it is proposed to incorporate this supply in the Council's permanent scheme.

Wells. No extensions were made during the year. It is proposed to provide a duplicate borehole at an estimated cost of £4,500.

Rural Areas.

Axbridge. Extensions were carried out at—

Congresbury (Smallway) ...	630 yds. 3in. main.
Bleadon to Hutton	2150 yds. 3in. main.

The size of the supply pipe to Brent Knoll was increased from 2in to 3in. for a distance of 75 yards.

900 yards of 3in. main was laid to new Housing Sites.

Proposals under consideration include:—

	Estimated cost. £
Dunyeatt Springs Development.—Buildings plant, chlorination mains, etc.	2,664
Crosswell electrification.—Buildings plant, mains, chlorination	3,777
Burrington Combe to Langford.—Extension of 3in. main for a distance of 3,250 yards	2,500
Langford to Station.—3in. main extension 513 yards	625
Congresbury (Brinsea Batch).—3in. main extension 2,403 yards	2,675
Churchill (Duck Lane).—3in. main extension for 200 yards	220

BATHAVON. The West Gloucester Water Company extended their mains to supply the village of Queen Charlton and the Training College at Newton Park.

Extensions have also been carried out to new Housing Sites.

Proposals under consideration comprise:—	Estimated cost. £
A main supply to serve the parishes of Combe Hay, Camerton, Dunkerton and Wellow, also to supplement the Peasedown St. John supply	21,822
Extension of Peasedown St. John main to serve Priston	3,800
Extension of Bath Corporation mains to serve Fosse Lane, Batheaston	120
Extension of Peasedown St. John mains to serve the Wick area of Camerton ...	350
The preparation of a scheme by the West Gloucester Water Company to provide a main supply to the villages of Northstoke, Kelston, Newton St. Loe, Corston, Burnett and Compton Dando.	
Linking of mains at Tunley and Bath Road	

BRIDGWATER. Long and short term proposals are under consideration. The short term programme provides for a new 10in. main from Barford Park (Enmore) to Dancing Hill, North Petherton and the provision of new service reservoirs to serve high and low levels.

CHARD. The supply to Winsham was improved by laying a 4in. main extension from Forton and the provision of electric boosting plant.

A 2in. extension from Crossways, Tatworth to Chilson was commenced.

Future proposals include:—	Estimated cost. £
(*a*) The replacement of corroded mains from Hare Lane to Stewley	7,257
(*b*) New rising main from springs at Stowell Mead to Two Ash reservoir including electric boosting plant	2,675
(*c*) 2in. extension to Newtown, Buckland St. Mary	1,190
(*d*) Additional borehole at Pole Rue, Combe St. Nicholas	3,000

CLUTTON. Shortage was experienced in the higher parts of the district. To augment the East Harptree source of supply to these parts, a connection was made to the main of the Bristol Waterworks Company at Coley.

Proposals under consideration concern the further augmentation of existing sources to afford a better supply to the Timsbury and Clutton areas. It is proposed to take this water from the Bristol Waterworks Company mains at Widcombe and link this supply with that received from Downside.

The estimated cost is £35,000

DULVERTON. The improvement of the supply to Dulverton and Exford is under consideration.

	Estimated cost. £
FROME. A well 5 feet diameter is being sunk at Norton St. Philip to improve the supply from this source ...	2,240
Extension of the mains from Norton St. Philip to Turner's Tower and Faulkland is under consideration ...	15,667
A joint scheme with Shepton Mallet R.D. is in its preliminary stage. It is hoped that the western side of the district will receive a supply as a result of this joint action ...	104,600

LANGPORT. The sinking of the 30in. diameter borehole at Compton Durville, Stage I of the eastern parishes scheme, was completed during the year and the pumping test provided satisfactory results.

Final approval by the Ministry of Health is awaited and it is hoped to start work on Stage II in the spring of 1948. This will supplement the supplies to Aller, Langport and Huish Episcopi and afford a new supply to High Ham and Pitney.

Stage II which includes reservoir construction, rising mains, etc., is estimated to cost ... 115,140

Stage III will extend the supply to Compton Dundon, Kingweston, Barton St. David, Keinton Mandeville, Babcary, also augment the supplies of Somerton and Long Sutton.

The estimated cost of Stage III is ... 110,372

LONG ASHTON. During the year, extensions of the mains supply by the Bristol Waterworks Company were made in the following areas:—

Backwell and Wraxall ...	(to Backwell Common and Lodge Lane, Church Town and The Grove).
Nailsea ...	(to West End, The Grove, Fosse Lane and Goss Lane).
Tickenham ...	(to Hill Lane).

Proposals under consideration in Priority Order include:—

Priority.	By Bristol Waterworks Company.	Estimated cost. £
1	*Abbots Leigh* to Blackmoor Road and Pill Road ...	2,303
2	*Barrow Gurney* to Barrow Hill and District ...	8,000
2	*Dundry.* Mains supply ...	35,000
	By Portishead Water Company.	
1	*Easton-in-Gordano* to Haberfield ...	2,000
3	*North Weston* mains supply to Redcliffe Bay area ...	10,000
4	*Clapton-in-Gordano.* Extension ...	7,000
	By the Council.	
1	*Yatton.* New borehole, pumping plant increased storage and pumping station	15,100
1	*Kingston Seymour.* To provide a mains supply from the Yatton source ...	14,000
1	*Kenn.* Extension of Yatton supply towards Kenn Court Farm ...	1,400
1	*Winford.* Extension to Harpers Batch and Hanging Grove ...	2,000

SHEPTON MALLET. Good progress was made during the year in collecting additional spring water in the Farncombe Valley to augment that supplying the Prestleigh Reservoir. It is anticipated that this will ease the shortages previously felt in the areas served by this source.

Tenders have been accepted for the laying of the 3in. and 4in. mains in the West Bradley and Hornblotton areas. These will replace those existing which are worn out.

A joint scheme with Frome R.D.C. to utilise the sources of water at St. Dunstan's Well and Ashwick Grove has been prepared. This has been sent to the Ministry of Health and it is anticipated that a Public Inquiry will be held in the near future. It is intended to use this supply for supplementing existing sources and affording a mains service to those parishes urgently in need of water.

The estimated cost is given as £210,000

TAUNTON. Proposals include mains supplies to the following areas:—

Cheddon Fitzpaine	Pyrland, Lyngford, Rowford and Upper Cheddon.
Churchstanton	Churchinford, Stapley and Willand.
Creech St. Michael	Adsborough, Coombe, Worthy Lane and Langaller.
Durston	Village.
Kingston	Village, Mill Cross, Greenway, Fulford, Yarford, Nailsbourne, Dodhill and Pickney.
Otterford	Bishopswood.
Pitminster	Higher Blagdon and Duddlestone.
Stoke St. Mary	Village and Broughton Lane.
Tolland	Village.
West Hatch	Village and higher portion of parish.
West Monkton	Village, Cherry Grove, Deep Lane and Overton.

WELLINGTON. Apparatus for chlorinating the supply was installed at Milverton.

A regional scheme has been prepared the cost of which is estimated at ... £120,000

In priority order it is proposed to give a mains supply to the parishes of Oake, Sampford Arundel and Wellington Without. A scheme covering these areas has been submitted to the Ministry of Health.

WELLS. Further exploratory work in the Priddy area has failed to produce any new substantial supply of water.

Small extensions have been carried out. Mains supplies are to be given to the villages of Walton and Meare, estimated cost £32,000

The provision of a main supply to the northern parishes, viz., Rodney Stoke, Westbury, Easton, Wookey and Coxley, is under consideration.

WILLITON. Consideration of future improvements include:—	Estimated cost. £
(1) Chlorination of Stogumber supply	450
(2) Augmentation of supply to Cutcombe	5,000

WINCANTON. The temporary reservoirs at Charlton Horethorne and Stoney Stoke have been completed.

A temporary reservoir at Charlton Musgrove is under construction, capacity 7,500 gallons.

The work on the test borehole at Shepton Montague was abandoned after a depth of 230 feet had been reached and the water-bearing strata passed without any satisfactory yield.

It is estimated that to meet the requirements of the district an additional 335,000 gallons per day are required.

YEOVIL. Proposals under consideration include:—

	Estimated cost. £
A scheme to serve the village of Closworth	2,050
A scheme to supply the Parrett Works Area, Martock	1,225
Further exploratory works carried out on the site of the impounding reservoir at Sutton Bingham in connection with the Comprehensive Scheme	600,000
As a part of the scheme, approval has been sought for:—	
(1) Laying of 9in. main from Halfway, Chilthorne Domer to Ilchester, and 6in. main through Ilchester	9,000
(2) Construction of a million gallon service reservoir at Odcombe	18,000

SEWAGE DISPOSAL AND RIVER POLLUTION.

Sewage Disposal.

No new works of a major nature were completed during the year. The new sewage disposal works at Wincanton, however, are nearing completion. The old plant was worn out prior to 1939 and but for the war would undoubtedly have been replaced before this time.

Work generally has been confined to the essential drainage of new housing sites with the consequent extensions of sewers.

Many major schemes have been prepared and some are under consideration but progress will doubtless be slow and difficult until the position improves respecting the shortage of labour and materials.

Circular 87/47 dated 12th May, 1947, sent by the Ministry of Health to all rural authorities drew attention to the policy and procedure in respect to rural sewerage. After referring to the limited amount of labour and materials available, the circular stated that in the first programme schemes should only be prepared and submitted, where (i) groups of some 20 or more houses, supplied or likely to be supplied with piped water, are sufficiently concentrated to enable sewers and sewage disposal to be provided at reasonable cost; or (ii) sanitary conditions are such as to call for immediate attention; or (iii) new housing development during the next few years will bring areas within either of the foregoing categories. With regard to the cost of schemes, normally this should not exceed £50 per property connected to the sewers. In more complicated schemes the cost may be as much as £100 per house on the same basis and in exceptional cases may rise to £120 per property. As a general rule the Ministry will not, for the present, approve schemes for immediate execution if the cost exceeds these figures.

In view of the nation's present resources, I again draw attention to the necessity of giving special supervision to existing disposal plants, to see that the highest possible degree of efficiency is obtained and maintained. The volume of sewage to many of the works is increasing daily and pollution of water-courses must be prevented or mitigated as far as possible.

Works carried out during the year and schemes under consideration are as follows:—

Sewage Disposal.

Urban Areas.

BRIDGWATER. Proposals under consideration include:—

(*a*) Provision of Sewage Disposal Works.

(*b*) A new sewer in Quantock Road.

(*c*) A new scheme for dealing with the effluent from the Cellophane Works.

CHARD. New Works are proposed at an estimated cost of £36,000. These disposal works will serve a population of 5,500 and it is hoped to make a start in May, 1948.

CREWKERNE. A new scheme for dealing with the sewage discharging to the Eastern Outfall Works has been submitted to the Ministry of Health for approval. This will serve a population of about 4,500 and is estimated to cost £37,000

FROME. A new sewer of some 200 feet was laid in Oakfield Road. The reconstruction of the outfall sewer and sewage disposal works is still under consideration.

GLASTONBURY. Schemes for the provision of new disposal works and the inclusion of the trade wastes from the two Sheepskin Dressing Factories in the Borough have been submitted by the Consultants to the Corporation.

Plans for the laying of a new sewer from the Windmillfield Hill Housing Estate and the re-laying of a section of the sewer in Benedict Street to prevent flooding, have been prepared; also for remedial works at Northload Bridge Pumping Station.

NORTON RADSTOCK. The drainage of the Thicket Mead area is under consideration.

Estimated cost £6,000

WELLINGTON. To take the drainage from the Longforth Housing Site the sewer was extended for 1,193 yards.

WELLS. The reconstruction of the disposal works is still under consideration at an estimated cost of £50,000

WESTON-SUPER-MARE. A Main Drainage Scheme is under consideration.

Estimated cost £400,000

YEOVIL. Improvements have been carried out to the disposal works with a view to improving their efficiency.

Rural Areas.

AXBRIDGE. During the year the following sewer extensions were carried out:—

Banwell	700 yds.	6in. diameter.
Blagdon	100 ,,	6in. ,,
Churchill	500 ,,	6in. ,,
Lympsham	200 ,,	6in. ,,
Winscombe	420 ,,	6in. ,,

Schemes under consideration include:—	Estimated cost. £
(*a*) Axbridge with Cross	35,548
(*b*) Congresbury, Wrington and District	47,300

BATHAVON. A storm-water sewer was laid at Upper Weston in connection with the development of housing sites.

Future proposals include:— John to serve new housing sites (part of 20,360

	Estimated cost. £
(*a*) A new sewer at Peasedown St. a major scheme)	
(*b*) The provision of a drainage system to serve the parishes of Wellow, Camerton and Dunkerton	120,000
(*c*) A sewerage scheme for Freshford	15,000
(*d*) The sewering of the London Road area of Bathford.	

BRIDGWATER. A new sewer was laid in Woolavington Lane, Cossington, to serve existing properties and proposed development.

Improvements under consideration are:—

(*a*) Sewage Disposal Works at Cannington.
(*b*) Sewerage and Disposal Works at Nether Stowey.
(*c*) Sewerage and Disposal Works at Chedzoy.

CHARD. Future drainage proposals include:—	Estimated cost £
Forton	3,000
Donyatt	4,000

CLUTTON. Schemes proposed provide for the drainage of Chilcompton, Paulton, Hallatrow and High Littleton.

DULVERTON. New drainage schemes are proposed for:—	Estimated cost £
(*a*) Winsford	4,000
(*b*) Withypool	4,000
(*c*) Brompton Regis	3,000

Long Ashton.

	Estimated cost £
Yatton. Scheme submitted to the Ministry of Health to provide new pumping plant and rising main at the Sewage Pumping Station to prevent flooding	6,500
Portbury. A sewerage scheme is under consideration for the drainage of the village in conjunction with the Council's housing estate	5,000

Other works under review include:—

Flax Bourton. Alterations to disposal works	1,200
Backwell. New effluent drain	850
Nailsea. Sewerage and sewage disposal	120,000

Shepton Mallet. Negotiations are still proceeding with the Norton Radstock U.D.C. respecting the sewage from the Chilcompton area being discharged into the urban sewers.

With regard to schemes for other parts of the district, the position is as reported in 1946.

Taunton. Improvement works were carried out in the village of Corfe to abate a nuisance.

Proposals under consideration for the provision of sewerage and sewage disposal concern the following parishes in priority order:—

Bishops Hull (Shutewater Hill), Hatch Beauchamp, Staplegrove (village), Pitminster, Trull parish (including Comeytrowe but omitting the Dipford area), Corfe, West Monkton, Norton Fitzwarren (Station Road and southern part of parish), Ruishton (village), Creech St. Michael (village as far as Police Station excluding higher part of the parish and Ham).

Wellington. A scheme to provide for the drainage of Langley, Langley Marsh and reconstruction of Style Works, Wiveliscombe, has been submitted to the Ministry of Health.

Wells. The position is as contained in my last report.

	Estimated cost £
Williton. A new scheme for the provision of sewerage and sewage disposal for the Parish of Stogursey has been prepared	12,350
The sewering of Crowcombe is also under consideration	4,000

Wincanton. The new sewage disposal works at Wincanton are nearing completion.

Plans are in course of preparation for the village of Templecombe.

Priority I Group comprises:—	Estimated cost £
Wincanton	40,000
Templecombe	30,000
North Cheriton	7,000
Sutton Montis	5,000

(All 1947 prices)

Yeovil. Schemes for Sewerage and Sewage Disposal are being prepared or under consideration for the parishes of:—

	Estimated cost £
Chilthorne Domer	9,275
Ilchester	16,305
Mudford	7,400
East and West Coker	60,500

RIVER POLLUTION.

No new Sewage Disposal works were provided during the year nor were there any major reconstructions carried out. As a result many purification plants are overloaded and pollution is taking place. The position is being aggravated by the waste from new houses and additions to factories. Several of the main rivers in the County have a very slow rate of flow and the balance of such rivers is easily upset. As purification works deteriorate so do the rivers and watercourses into which the effluent discharges. In view of this it has been found necessary to increase considerably the number of routine visits, particularly to those rivers receiving increasing volumes of trade wastes.

By observation and sampling it can be said that control has been maintained but the position is becoming exceedingly difficult.

The use of labour and materials have been so restricted that local authorities have not been able to proceed with their plans. The same applies to industrial concerns. Advisory work has assisted in materials available being used to the best advantage.

Very few complaints were received during the year, the rivers affected being as follows:—

River Axe. This river is still subject to industrial pollution and although its condition has improved somewhat, it is still far from its normal state. The paper mill responsible has called in as Consultants both the Paper Research Board and the Water Pollution Research Board, in an effort to get the best advice possible.

River Brue. There were two separate losses of fish life reported during the year, both in the Glastonbury area. Unfortunately in each instance the information was received some days after the fish had died, and all traces of the possible cause had disappeared. The investigations that followed led to the conclusion that the first was caused by the bursting of a vat of cider which eventually found its way into the river. The second case was attributed to a heavy rainstorm washing out a stagnant lagoon. In both cases appropriate steps were taken to prevent a repetition.

A number of complaints were received respecting the condition of the water used for cattle watering which flows from the Mill Stream, Glastonbury. In one case it was alleged that the health of the animals was being affected. For many years the Mill Stream has received the trade waste from two skin processing factories. Both take water from the watercourse for processing purposes and by an old agreement the water must be returned to the same stream. With both firms extending their works, conditions do not tend to improve. For a short stretch this watercourse is one of the worst in the County. For some time both companies have been negotiating with the Glastonbury Corporation for the discharge of their waste to the Council's sewers. Some headway has recently been made and it is hoped that agreement will be reached soon. Meantime regular supervision is being maintained.

River Isle. Many fish were destroyed in this river due to the lifting of sluice gates and draining of the large disused Chard reservoir. As a result of the lower waters scouring the bed of the reservoir the river was in a turbulent state for a considerable distance and the fish were asphyxiated. Unfortunately the sluice gates could not be completely closed owing to an obstruction and bad river conditions existed for some time until closure was effected.

River Land Yeo. Complaints were received respecting the pollution of this river at Wraxall by the waste from a cider factory. Samples of the river water were taken and the results of the tests showed that there was little evidence of serious contamination. The cider works however have expanded greatly in recent years, and to prevent possible pollution, the firm were approached respecting the provision of proper disposal works A Consultant was called in by the Company and several conferences have been held. It is anticipated that a scheme to deal with the purification of the cider waste will be submitted early in 1948.

River Sheppey. This river was subject to pollution on several occasions due to the inefficiencies of the Shepton Mallet Urban Council's sewage disposal plant. Extensions here are overdue but the necessary works have been deferred. Meantime minor steps have been taken to reduce contamination of the watercourse.

River Tone. A small loss of fish life was reported at Taunton near the gasworks. This happened in August when the water was very low and the atmospheric temperature very high. After a thorough investigation it was concluded that the cause was due to the abnormal weather conditions.

Considerable sampling was carried out in the Wellington neighbourhood, much of it of an advisory nature, mainly to assess the effect of trade waste discharging into the river. The results were passed on to the Mill concerned.

Many improvements have been carried out at the Taunton Gasworks to prevent oils damaging to fish life entering the river.

The condition of the river between Lambrook and beyond Bathpool leaves a lot to be desired. This is due to the poor effluent being discharged into the Tone by the Taunton Borough Council's sewage purification plant. It was proposed to provide new works and a Government Inquiry was held early in the late war. Owing to the National position, the proposals were deferred indefinitely.

Two cases of pollution were reported at Wellington, both due to the effluent from sewage works. Remedial measures were taken by the Wellington U.D.C. and the pollution stopped.

River Washford. The effluent from the Wansborough Paper Mills discharging into the Washford was reported as being most unsatisfactory. The matter was taken up with the Company who have submitted a scheme of rebuilding. Application for a licence to carry out the work was made.

River Yeo. Complaints were received on several occasions respecting the condition of this river. It is receiving heavy pollution from the Yeovil Corporation's sewage disposal works. Plans for new works have been prepared, but the order to proceed with the scheme has not yet been given.

A slight pollution of a tributary of the River Yeo occurred at Goathill, at a point where the effluent from the Milborne Port sewage works discharges. This was due to the simultaneous breakdown of the two sewage pumps, a rare occurrence. Repairs were soon effected and gross pollution prevented.

HOUSING.

The position with regard to housing is still acute. During the year local authorities erected 1,899 houses whilst those built by private enterprise numbered 352. To be added to these figures are the separate homes provided by the conversion of large buildings into flats and temporary tenements. These number 705 making a grand total of 2,956.

Houses in course of erection by both Local Authorities and private enterprise amount to 1,941.

Applicants for houses in the County total nearly 25,000 being several thousands above the number on the waiting lists of local authorities last year.

Condemned and unfit houses remain occupied, many under licence. Their condition is becoming worse and the health of the inmates is bound to suffer as a consequence.

Conversions of large buildings into flats continue. Some are of a permanent nature but the majority are for temporary occupation only; these apply chiefly to camps. Nevertheless these provide separate homes which lead to a more contented and settled outlook for the occupiers. Although such accommodation may lack certain amenities, it is preferable to young married couples with small children staying with their in-laws or in furnished rooms.

Overcrowding is still very bad but until the housing position alters there is little likelihood of any material improvement.

New houses erected and in course of erection, both permanent and temporary, are shown in Table XII, also the number of conversions that have been carried out. Houses required to cover unsatisfactory conditions are included in the summary, together with the number of applicants for new houses.

Rural Housing Survey.

Table XIII shows the progress made towards the completion of the Survey in the County to the 31st December, 1947, also the categories into which the houses surveyed have fallen.

It was recommended by the Somerset Rural Housing Committee that the survey should be completed within 18 months from the 31st March, 1945, in other words by September 30th, 1946. By comparing the total at the foot of Column (6) with that of Column (4), the latter figure being the total number of houses coming within the survey, it will be seen that the half-way mark has not been reached.

Against a total of 9,878 houses inspected in 1946 only 3,576 were surveyed in 1947, a little one one third.

Whilst one authority has completed the survey and two have covered over 90 per cent. and 70 per cent. respectively, the progress towards completion by the remaining authorities varies between 30 per cent. and 50 per cent. Chard is an exception having dealt with less than 10 per cent. of the total houses in their area which come within the survey.

Of the 22,107 houses inspected, Column (6), 3,426 were found fit in all respects, see Columns (8) and (10). As different methods of conducting the survey have been adopted by the 16 rural districts, viz., Worst parishes first, parish by parish, worst properties first, the figures in the columns covered by the heading Categories cannot be used for comparative purposes.

Whilst the survey is lagging in certain districts and has practically halted in some, other authorities are pursuing their task with vigour.

I think it is true to say that the chief reason for the slowing down is due to the fact that owing to the shortage of labour and materials it is felt that a lot of the work is negatived by being unable to follow it up.

It will be noted that at the foot of Column (20) there are 6,349 unfit houses, whilst Column (18) shows that 8,861 require extensive repair or structural alteration. Out of these two categories there are 1,888 cottages, see foot of Column (16) which are considered suitable for grants. As time goes by, many properties in categories II and III will fall into lower classification groups unless repairs are effected soon.

The cost of reconditioning a cottage to-day may be anything between £400 and £1,000. Many owners, and there are a good number of owner occupiers some having retired from work, will find great difficulty in meeting such high repair costs without financial assistance. If these houses are lost the housing position will worsen.

TABLE XII.

Local Authority.	I Houses erected by		II Houses in course of erection by		III Conversion to Flats, etc.		IV Houses required			V Applications for Houses.
	L.A.	P.E.	L.A.	P.E.	L.A.	P.E.	To replace Unfit.	To abate overcrowding	For other unsat. conditions.	
URBAN AREAS.										
Bridgwater ...	224	13	227	4	—	14	120	50	1022	1492
Burnham-on-Sea	90	32	—	9	—	24	— Sites for 100—160 required. —			
Chard ...	18	3	59T —	2	—	8	71	47	61	376
Clevedon ...	12	7	40	7	9	38	1	—	300	375
Crewkerne ...	25	1	27	4	—	—	28	150	40	216
Frome ...	33	16	4	11	—	1	250	30	239	624
Glastonbury ...	—	6	50	4	—	5	60	18	80	257
Ilminster ...	12	—	34	—	—	—	50	10	30	280
Keynsham ...	15	12	106	9	—	4	200	90	255	733
Minehead ...	56	—	23	2	—	12	30	30	200	320
Norton Radstock	36	10	16	14	—	1	50	40	390	700
Portishead ...	30	—	—	—	—	3	31	52	153	236
Shepton Mallet	40	1	10	4	5	2	—	—	—	300
Street ...	20	—	18	7	—	—	——100——			250
Taunton ...	148T 284	1	100	2	1	14	180	—	—	2458
Watchet ...	4	—	16	—	1	—	—	—	—	70
Wellington ...	36	—	54	—	—	—	208	21	193	384
Wells ...	22T 14	—	42	2	—	17	150	—	188	340
Weston-s.-Mare	43T 46	18	16T 108	6	105	17	171	65	—	3812
Yeovil ...	61	23	8	2	—	33	12	180	1000	1760
Totals ...	213T 1056	143	75T 883	89	121	193	—	—	—	—
RURAL AREAS.										
Axbridge ...	74	21	90	7	—	4	157	47	451	865
Bathavon ...	102	23	47T 90	6	33	18	234	47	153	1135
Bridgwater ...	11T 36	1T 8	6T 6	1T 4	—	8	652	7	—	933
Chard ...	30T 34	6	24	3	30	—	—	—	—	598
Clutton ...	14	1	40T 30	3	—	—	536	239	122	1028
Dulverton ...	14	—	22	2	—	—	20	16	12	42
Frome ...	2	12	60	8	—	—	814	—	—	336
Langport ...	14	3	20	—	1	5	592	9	—	464
Long Ashton ..	72	75	78	21	91	44	273	83	200	800
Shepton Mallet	15	4	32	5	—	1	30	8	139	334
Taunton ...	14	1	46	—	24	39	350	—	260	471
Wellington ...	40	11	40	2	—	—	245	4	50	190
Wells ...	21	11	63	4	3	12	200	24	75	347
Williton ...	6	1T 13	26	7	—	5	600	12	150	250
Wincanton ...	71	8	41	2	6	10	384	10	450	690
Yeovil ...	60	2T 9	48	10	48	9	273	37	515	1320
Totals ...	41T 589	4T 206	93T 716	1T 84	236	155	—	—	—	—
Combined Totals ...	254T 1645	4T 349	168T 1599	1T 173	357	348	—	—	—	—

"T" means Temporary. The remaining houses are of Permanent construction.

NOTE.—The figures given for Rural Areas under Col. IV take into consideration houses visited under Public Health Acts as well as those inspected under the Housing Act, 1936. Some of the figures (Urban and Rural) have possibly been estimated by the district authority.

TABLE XIII.

PROGRESSIVE HOUSING STATEMENT showing the progress of the RURAL HOUSING SURVEY to 31st December, 1947.

CATEGORIES:—

I.	Satisfactory in all respects.	IV.	Suitable for Housing (Rural Workers) Acts.
II.	Minor defects.	IVA.	Suitable for acquisition.
III.	Repairs or structural alterations.	V.	Unfit.

Local Authority	Number of Houses in District.					Inspected.		CATEGORIES.														Over-crowding.	
								I.				II.		III.		IV.		IVA.		V.			
								Standards.															
								District.		County.													
	Over £16 R.V. excluding Council houses.	No. of Council houses.	No. of Private houses built since 1930.	£16 R.V. or under excluding Cl. houses, also those built Privately since 1930.	% £16 R.V. or under of total houses in District.	Number.	% on Col. (4).	Number.	% on Col. (6).	Number.	% on Col. (6).	Number.	% on Col. (6).	Number.	% on Col. (6).	Number.	% on Col. (6).	Number.	% on Col. (6).	Number.	% on Col. (6).	Number.	Abated.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
Axbridge ...	1275	578	920	4055	59.3	1607	39.6	130	8.1	52	3.2	290	18.0	1030	64.1	76	4.8	—	—	157	9.8	30	16
Bathavon ...	1683	186	950	3274	53.7	1743	53.2	68	3.9	11	0.6	309	17.7	1219	69.9	—	—	8	0.4	147	8.4	10	6
Bridgwater ...	855	437	657	4359	69.1	2366	54.2	4	0.2	3	0.1	231	9.8	1415	59.7	235	9.9	—	—	716	30.2	29	22
Chard ...	285	254	157	2721	79.6	258	9.5	16	6.2	10	3.8	43	16.7	110	42.6	—	—	—	—	89	34.5	—	—
Clutton ...	434	614	407	3378	69.8	1325	39.2	—	—	—	—	—	—	296	22.3	27	2.3	—	—	1029	77.7	—	—
Dulverton ...	204	92	86	1251	76.6	706	56.4	312	44.0	—	—	172	24.3	203	28.7	5	0.6	—	—	19	2.7	18	6
Frome ...	333	182	—	2509	82.9	2419	96.4	327	13.5	149	6.2	536	22.1	749	30.9	362	14.9	—	—	807	33.3	—	—
Langport ...	452	407	190	2701	72.0	1098	40.7	11	1.0	7	0.6	47	4.3	378	34.4	317	28.9	—	—	662	60.2	9	3
Long Ashton ...	2458	357	563	2776	45.1	2084	75.0	596	28.6	81	3.9	326	15.6	885	42.5	26	1.3	473	22.7	277	13.3	118	30
Shepton Mallet..	480	210	207	2171	70.8	1018	46.9	84	8.2	4	0.4	136	13.3	528	51.8	86	8.4	1	0.1	270	26.5	16	8
Taunton ...	557	426	265	3643	74.5	1603	44.0	78	4.8	47	2.9	920	57.4	255	15.9	—	—	20	1.2	350	21.8	—	—
Wellington ...	313	246	—	1584	73.9	517	32.6	50	9.7	—	—	39	7.5	174	33.7	194	37.5	—	—	254	49.1	6	2
Wells ...	459	111	207	1725	68.9	1725	100.0	564	32.7	59	3.4	206	11.9	534	30.9	231	13.4	107	6.2	421	24.4	—	—
Williton ...	768	309	397	2492	62.8	950	38.5	158	16.6	43	4.5	202	21.3	345	36.3	49	5.2	—	—	245	25.8	16	4
Wincanton ...	1449	856	216	2409	48.8	824	34.2	25	3.0	—	—	108	13.1	58	7.0	135	16.4	25	3.0	633	76.8	—	—
Yeovil ...	698	931	618	3455	60.6	1864	53.9	362	19.4	175	9.4	547	29.3	682	36.6	145	7.7	—	—	273	14.6	37	—
	12703	6196	5840	44503		22107		2785		641		4112		8861		1888		634		6349		289	97

SUPERVISION OVER THE FOOD SUPPLY.

A. Slaughter Houses and Meat Supervision.

The Ministry of Food still control those slaughter houses and abattoirs in the County where cattle, sheep and pigs are slaughtered for human consumption under the Livestock (Restriction on Slaughtering) Order, 1940.

These are situated in the following areas:—Chard, Crewkerne, Frome, Minehead, Shepton Mallet, Taunton, Weston-super-Mare and Yeovil. Inspection of the meat is carried out by the district Sanitary Inspectors.

Horse flesh is now being consumed in greater quantities by the public and there are two licensed slaughter houses situated in the Bridgwater and Taunton areas where horse slaughtering takes place.

There are twelve Knackers' Yards in the County situated in the districts of Burnham Urban and Bathavon, Bridgwater, Frome, Langport, Shepton Mallet, Taunton, Wells, Wincanton and Yeovil rurals.

B. Tuberculosis in Calves.

Where calves born inside the County but slaughtered outside are found to be suffering from tuberculosis an arrangement is in being whereby the County Sanitary Inspector is notified. As a result of this, the information is passed on to the Divisional Inspector of the Ministry of Agriculture and Fisheries with a view to investigations being carried out.

The following is a summary of the action taken during the year:—

Notifications received	38		
Calves involved		36	
Bulls ,, ...		2	
			38
Results of Investigations:—			
Number of mothers found healthy			9
,, died			1
Number of Cows slaughtered:—			
(*a*) Showing advanced tuberculosis		2	
(*b*) ,, non-advanced ,, ...		20	
			22
Number unable to trace			4
In the case of the Bulls notified, the herds which they served were examined but no clinical evidence of Tuberculosis was disclosed			2
			38

TABLE XIV.

C. **Milk Supply.**

The table below gives particulars of the number of Registered Producers and Retailers. also the Pasteurising and Heat Treatment plants in the respective districts:—

Local Authority.	I. Registered Dairy Farms.	II. Retailers.	III. Producer-Retailers included in Col. II.	IV. Licensed Pasteurising Plants.	V. Authorised Heat Treatment Plants not included in Col. IV.
Urban Areas.					
Bridgwater ...	14	42	33	1	—
Burnham ...	21	17	7	1	1
Chard ...	7	6	6	1	—
Clevedon ...	14	25	9	1	1
Crewkerne ...	10	6	2	1	—
Frome ...	11	11	3	1	1
Glastonbury ...	48	8	4	—	—
Ilminster ...	7	4	1	1	—
Keynsham ...	22	6	3	1	—
Minehead ...	5	6	2	1	—
Norton Radstock	38	18	16	—	1
Portishead ...	7	6	3	—	—
Shepton Mallet..	18	6	1	1	—
Street ...	17	11	6	—	—
Taunton ...	4	24	2	3	—
Watchet ...	4	7	2	—	—
Wellington ...	16	9	14	1	—
Wells ...	7	7	2	—	—
Weston-s.-Mare.	27	53	9	—	—
Yeovil ...	12	19	9	2	—
Totals ...	309	291	134	16	4
Rural Areas.					
Axbridge ...	906	102	93	1	—
Bathavon ...	265	78	59	1	—
Bridgwater ...	823	158	139	—	1
Chard ...	547	60	58	—	1
Clutton ...	415	87	81	1	1
Dulverton ...	170	80	80	—	—
Frome ...	396	113	110	—	1
Langport ...	475	127	125	1	—
Long Ashton ...	352	83	60	—	—
Shepton Mallet..	408	49	45	—	1
Taunton ...	416	45	40	—	—
Wellington ...	202	90	87	—	—
Wells ...	465	118	107	—	—
Williton ...	351	134	132	—	—
Wincanton ...	583	40	36	1	4
Yeovil ...	431	134	125	—	—
Totals ...	7,205	1,498	1,377	5	9
Combined Totals ...	7,514	1,789	1,511	21	13

With regard to Heat Treatment plants, those shown in Col. V have been authorised by the Ministry of Food. At the request of the Ministry samples are taken fortnightly by the County Sanitary Officer's staff and submitted for examination to the County Public Health Laboratory.

Designated Milk (raw).

From the figures appended it will be observed that the steady increase of designated producers continues. There is a gain of 122 over 1946. An excellent feature is the large increase of licensees producing "Tuberculin Tested" milk, viz., 162 during the year:—

Year (at end of).	T.T.	Accredited.	Total.
1936	126	285	411
1937	159	506	665
1938	264	623	887
1939	320	800	1,120
1940	305	849	1,154
1941	275	817	1,092
1942	297	871	1,168
1943	357	840	1,197
1944	502	705	1,207
1945	596	758	1,354
1946	739	757	1,496
1947	901	717	1,618

Transfers:—	
From "Accredited" to "T.T."	80
From "T.T." to "Accredited"	2
Number of licences cancelled or relinquished:—	
"Tuberculin Tested" ... ... (2 of these reverted to "Accredited")	28
"Accredited" ... ... (80 of these transferred to "T.T.")	99
Licences suspended:—	
"Tuberculin Tested"	1
"Accredited"	Nil.
Licences revoked	Nil.
Licences reinstated:—	
"Tuberculin Tested"	10
"Accredited"	8

Following the prolonged hot and dry Summer the percentage of samples which proved unsatisfactory increased. Many requests for advisory visits were received. These, however, mainly come from the conscientious milk producers whose sampling records can be classified as very good. Such licensees are naturally perturbed when their milk fails to satisfy the official tests. These applications for advice are welcomed as they indicate a will to produce clean, wholesome milk. Other requests are made usually when there is a danger of drastic action being taken respecting the suspension of a licence. It is far better to ask for help when the initial sample fails and have any faults corrected than wait until danger threatens.

"Why does my milk fail", is a common question. Generally it is due to insufficient attention being paid to the thorough cleansing of utensils and apparatus. Efficient sterilisation of milking pails and plant immediately after milking is the best insurance against milk of poor keeping quality.

As Somerset produces about 6% of the country's total milk supply, it is most essential, particularly in these times, that producers and those to whom the milk is consigned should work in the closest co-operation and take all steps necessary to see that milk is not wasted through avoidable causes.

Samples taken during the year and the test results are as follows:—

BULK SAMPLES:					
T.T. ...	3,700	Satisfactory ..	2,924	% Unsatisfactory	20.9
Accredited ...	3,411	do. ...	2,590	do. ...	24.0
Totals	7,111		5514		
FARM BOTTLED:	370	do. ...	74	do. ...	16.7

The above figures include pre-licence, extra sampling and reinstatement samples. The rather high percentage of the samples found unsatisfactory were in the main due to the August results. In this month out of 583 samples taken 378 or 64.8% failed to satisfy the test.

Routine inspections of designated producers' premises have been maintained and a considerable number of advisory visits have been paid. With a view to assisting in tracing the cause of samples failing, numerous check rinses of milking machines and apparatus were taken.

Pasteurised and Heat Treated Milk.

At the request of the Ministry of Food the Sampling Officers take samples fortnightly at depots authorised by the Ministry to heat treat milk.

By arrangement with district authorities, samples of Pasteurised milk are also taken at similar intervals.

The samples taken and results are as follows:—

Samples taken.	Satisfactory.	% Unsatisfactory.
683	611	10.5

Failed Phosphatase test only	1.8
,, Phosphatase test and Methylene Blue	0.3
,, Methylene Blue test only	8.3

Where samples fail, in co-operation with the Ministry of Food and officials of district authorities, advisory visits are paid to the depots concerned.

Biological Sampling.

Routine bulk sampling from "Accredited" and undesignated herds is carried out by the Sanitary Inspectors and the samples submitted to the Public Health Laboratory for test. When positive results are obtained these are communicated immediately to the Divisional Inspector of the Ministry of Agriculture and Fisheries:—

Milks Examined for Tubercle Bacilli for 1947.

	Number examined.	Number containing tubercle bacilli.	Percentage containing T.B.
Ungraded	259	4	1.5
Accredited	80	6	7.5
Tuberculin Tested ...	15	—	—
Heat Treated	2	—	—

Churns, Milk Bottles and Containers.

The tables below summarise the results of the check tests made on churns and milk containers:—

MILK CHURNS.

	No. of Samples taken.	Satisfactory.	% Unsatisfactory.
Machine washed ...	197	157	20.3
Hand washed ...	93	71	23.6
Total ...	290	228	21.4

There has been a definite improvement in the cleanliness of churns during the past year. In the larger dairies several worn-out washing machines have been replaced by new ones and others have been reconditioned.

Hand washing in the main depends upon the individual washing the churns. This method is now mainly confined to small dairies. The figures given above show that there is still room for considerable improvement in the condition of churns. It is useless producing clean milk and putting it into dirty containers.

EMPTY CLEANSED BOTTLES.

The appended table shows the results of bottles submitted to a sterility test:—

	BOTTLES								
	Machine washed.			Hand washed and sterilised.			Hand washed and not sterilised.		
	No. of Samples taken.	Satisfactory.	% Unsatisfactory.	No. of Samples taken.	Satisfactory.	% Unsatisfactory.	No. of Samples taken.	Satisfactory.	% Unsatisfactory.
From premises licensed for bottling ½ and 1 pint.	100	71	29.0	367	253	31.0	34	13	61.7
From school suppliers ⅓ pint.	178	109	38.7	240	161	32.9	84	29	65.4
Total ...	278	180	35.2	607	414	31.7	118	42	64.4

Of the three methods of washing those bottles, hand washed and not sterilised show by far the worst results. Here again efficient sterilisation cannot be over emphasised. Much time is spent by the advisory staff in checking faults, particularly in washing methods.

SCHOOL MILK.

Table A sets out the position at the end of December, 1947. It will be observed that every school received a supply of milk.

Table A.

Types of Schools (including Divisional Executive Areas).	Total number of each type.	Number of schools and types of milk consumed with percentages.									
		Past. and H.T.	%	T.T.	%	Acc.	%	U.D.	%	NDM.	%
Primary	430	269	62.5	119	27.7	13	3.0	28	6.5	1	0.2
Secondary Modern ...	30	26	86.6	4	13.3	—	—	—	—	—	—
,, Grammar ...	18	14	77.7	4	22.2	—	—	—	—	—	—
,, Technical ...	2	2	100.0	—	—	—	—	—	—	—	—
Nursery	10	6	60.0	4	40.0	—	—	—	—	—	—
Totals ...	490	317	64.7	131	26.7	13	2.6	28	5.7	1	0.2

Table B shows the number of children attending the various types of schools, the class of milk consumed by each type and the percentages.

Table B.

Types of Schools (including Divisional Executive Areas).	Number of Scholars.	No. of children taking :—									
		Past. and H.T.	%	T.T.	%	Acc.	%	U.D.	%	NDM.	%
Primary	37385	28335	75.8	7725	20.6	560	1.5	744	1.9	21	0.1
Secondary Modern ...	7975	6731	84.4	1244	15.6	—	—	—	—	—	—
,, Grammar ...	5553	4369	78.6	1184	21.3	—	—	—	—	—	—
,, Technical ...	203	203	100.0	—	—	—	—	—	—	—	—
Nursery	387	239	61.8	148	38.2	—	—	—	—	—	—
Totals ...	51503	39877	77.4	10301	20.0	560	1.1	744	1.4	21	0.004

Table C gives the various kinds of milk supplied, the percentage of each kind consumed and comparative information respecting the year 1934 with those of 1945-46-47.

Table C.

	1934	1945	1946	1947
Past./H.T.	35%	53.6%	71.3%	77.4%
T.T.	5%	20.0%	22.3%	20.0%
Accredited	—	17.0%	2.0%	1.1%
Undesignated (Boiled)	24%	9.0%	4.3%	1.4%
National Dried Milk	—	—	0.02%	0.004%
No Milk	35%	0.4%	0.08%	—

Progress has been maintained in improving the supply of safe milk to schools as Table C shows. Only 2.6 per cent. or 1,325 children out of a total of 51,503 are receiving milk of a type other than Pasteurised, Heat Treated or Tuberculin Tested. Every endeavour is made to provide all scholars with the grades mentioned.

Owing to the isolated position of some of the schools, it may be that we have nearly reached the limit of what it is possible to do in implementing what is stipulated in the Ministry of Education Circular 119/46 under present circumstances.

Head teachers at schools receiving a supply of Accredited or Undesignated milk are warned that this milk must be boiled before it is given to the children.

My department is involved in a considerable amount of work in connection with the Milk in Schools Scheme. Apart from dealing with the voluntary resignation of Dairymen and finding new and reliable substitutes who will supply a safe milk, the milk of all suppliers is sampled frequently and advisory visits made to dairies when samples do not reach the desired standard. Samples are also taken of the supplies to school kitchens.

ICE CREAM

(Heat Treatment, etc.) Regulations, 1947.

During the year considerable attention was focussed on ice cream. The Ice Cream (Heat Treatment, etc.) Regulations, 1947, came into operation on May 1st. These regulations deal mainly with pasteurising, temperatures and holding times also the time and temperature to which hot mixes must be reduced, and after freezing, the temperature above which the ice cream must not rise.

Local authorities are responsible for administering the regulations and likewise the appropriate sections of the Food & Drugs Act, 1938, which deal with the registration of premises also stalls, barrows and vehicles.

Shortly after the Regulations came into being a meeting of County District Sanitary Inspectors was convened to discuss with the Public Health Laboratory Service the taking and submission of samples for testing. A further conference took place in November of County Public Health Officials to analyse the season's results. These are set out in Table XV below.

The provisional Grades into which the samples have fallen are those suggested by the Ministry of Health. It is thought that if, out of the four grades recommended ice cream consistently fails to reach Grades I and II, it would be reasonable to regard this as indicating defects of manufacture or of handling which call for further investigation.

Much research work in connection with the testing and grading of ice cream is still going on.

TABLE XV.

District.	No. of premises registered for: Manufacture and/or Sale	Sale	No. of Vendors Sampled.	HOT MIX Number of Samples falling into Provisional Grades. I	II	III	IV	Total.	COLD MIX Number of Samples falling into Provisional Grades. I	II	III	IV	Total.
URBAN AREAS													
Bridgwater ...	12	22	8	4	1	2	11	18	—	—	—	—	—
Burnham ...	4	16	5	7	6	15	11	39	—	1	—	2	3
Chard ...	1	3	—	—	—	—	—	—	—	—	—	—	—
Clevedon ...	2	14	—	—	—	—	—	—	—	—	—	—	—
Crewkerne ...	1	6	—	—	—	—	—	—	—	—	—	—	—
Frome ...	5	7	5	—	2	2	2	6	—	1	1	2	4
Glastonbury ...	3	7	4	5	4	12	12	33	—	—	1	—	1
Ilminster ...	—	2	—	—	—	—	—	—	—	—	—	—	—
Keynsham ...	1	10	1	1	—	—	1	2	—	—	—	—	—
Minehead ...	6	—	9	12	10	7	12	41	—	—	—	—	—
Norton Radstock.	8	11	—	—	—	—	—	—	—	—	—	—	—
Portishead ...	3	5	—	—	—	—	—	—	—	—	—	—	—
Shepton Mallet...	3	2	—	—	—	—	—	—	—	—	—	—	—
Street ...	—	13	—	—	—	—	—	—	—	—	—	—	—
Taunton ...	7	29	12	31	19	14	22	86	7	3	1	4	15
Watchet ...	3	9	3	7	1	10	9	27	—	—	—	—	—
Wellington ...	5	7	5	3	1	2	—	6	5	3	1	1	10
Wells ...	6	15	7	13	9	9	7	38	5	4	4	3	16
Weston-s.-Mare ..	14	54	30	23	22	19	32	96	4	3	3	1	11
Yeovil ...	6	21	9	4	3	6	13	26	—	2	1	2	5
TOTAL ...	90	253	98	110	78	98	132	418	21	17	12	15	65
RURAL AREAS													
Axbridge ...	26	7	11	12	7	9	12	40	—	1	1	—	2
Bathavon ...	2	6	3	1	—	—	2	3	2	1	—	3	6
Bridgwater ...	5	16	4	3	1	1	2	7	—	—	—	—	—
Chard ...	—	2	—	—	—	—	—	—	—	—	—	—	—
Clutton ...	—	5	—	—	—	—	—	—	—	—	—	—	—
Dulverton ...	2	2	3	—	—	2	3	5	1	—	2	5	8
Frome ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Langport ...	—	11	—	—	—	—	—	—	—	—	—	—	—
Long Ashton ...	5	11	8	5	3	4	5	17	1	—	—	—	1
Shepton Mallet...	—	1	—	—	—	—	—	—	—	—	—	—	—
Taunton ...	1	5	—	—	—	—	—	—	—	—	—	—	—
Wellington ...	1	3	1	—	2	1	1	4	—	—	—	—	—
Wells ...	—	4	—	—	—	—	—	—	—	—	—	—	—
Williton ...	7	13	10	7	3	4	10	24	5	2	2	3	12
Wincanton ...	3	11	—	—	—	—	—	—	—	—	—	—	—
Yeovil ...	1	13	2	3	1	1	4	9	—	—	—	—	—
TOTAL ...	53	110	42	31	17	22	39	109	9	4	5	11	29
Combined Totals ...	143	363	140	141	95	120	171	527	30	21	17	26	94

ANNUAL REPORT OF THE COUNTY PUBLIC ANALYST.

The work consisted of the examination of samples of food and drugs taken under the Sale of Food and Drugs Act, 1938, the Statutory Rules and Orders of the Ministries of Health and Food, and the Public Health Acts. In addition, the chemical analysis of drinking waters, sewage and effluents, river waters, samples under the Rag Flock Act, and other special analytical work has been undertaken.

The following is a summary of the above work.

Samples taken under the Food and Drugs Act, 1938:—

Number taken formally	1,048	
Number taken informally	547	
Appeal to Cow samples	40	
Samples submitted by private individuals	31	
		1,666
Samples received for special investigation		10
Samples taken under the Rag Flock Act		1
Drinking water samples for chemical analysis		75
Sewages, effluents and river water samples		103
Miscellaneous samples		25
Total number of samples		1,880

The year 1947 was the first complete year in which the Public Analyst's Laboratory was working as a separate unit, the bacteriological work having been taken over by the Public Health Laboratory Service of the Medical Research Council, and, as was to be expected, the numbers of all classes of samples examined have increased. It also becomes necessary to devote more and more time to the examination of individual samples by reason of the numerous Orders issued by the Ministry of Food, so that the actual increase in number does not represent the true increase in the amount of work undertaken during the year.

Food and Drugs Act, 1938, etc.

The total number of samples submitted for analysis under the above Act and Orders was 1,666, of which 113 or 6.8 per cent. were adulterated or incorrect, compared with 3.5 per cent. in the previous year. The following table sets out in more detail the number of samples examined, the number adulterated or incorrect and the percentage adulterated or incorrect.

	Number Examined.	Number Incorrect.	Percentage Incorrect.
Milk	689	72	10.4
Goat's Milk	1	—	—
Condensed and Evaporated Milks	15	—	—
Cheese	23	—	—
Butter	61	—	—
Margarine	34	—	—
Other Edible Fats	48	—	—
Cereal Products	34	1	2.9
Baking and Golden Raising Powders	14	—	—
Sausages	10	2	20.0
Other Meat and Fish Products	29	—	—
Beef Extract	3	—	—
Tea	20	—	—
Coffee	15	—	—
Coffee and Chicory Extract	12	—	—
Cocoa and Cocoa Compounds	22	—	—
Malt Beverages...	3	—	—
Gelatine	13	2	15.4
Canned Meat and Vegetables	23	1	4.3
Canned Fruit	3	—	—
Canned and Powdered Soups	7	—	—
Jam, Marmalade, etc.	48	2	4.2
Vinegars	31	—	—
Pickles and Sauces	36	1	2.8
Condiments	21	—	—
Miscellaneous Groceries	107	6	5.6
Soft Drinks	40	7	17.5
Ice Cream	17	—	—
Liqueurs	1	—	—
Beer, Cider and Spirits	82	2	2.4
Drugs	204	17	8.3
	1,666	113	6.8

Adulterated Milk Samples.

Details of the 72 milk samples returned as adulterated are given below.

The percentage of adulterated milks for 1947 (10.4%) is very much greater than that for the previous year, which was only 4.0%. This apparent increase in adulteration is probably due to the fact that a large number of samples were taken as a result of complaints received from milk factories.

A summary showing the nature of the adulteration and also information regarding each individual sample follows:—

Number containing added water	36
Number deficient of fat	31
Number containing added water and deficient of fat	5
Number containing preservatives	Nil.

No.	Added water or fat deficiency.	Action taken and results of legal proceedings.
7473	13% Water	Fined £10, Advocate's fee £4 4s. 0d. Witness 10/-.
7487	15% Water	Fined £4, Costs £2 2s. Witness 10/-.
7555	11% Water	Fined £10, Advocate's fee £2 2s. 0d. Witness 10/-.
7556	5% Solids-not-fat deficiency	
7557	10.5% Water	
7558	6% Water	
7676	6.5% Fat	Cautioned.
7681	14.5% Water	Fined £10, Advocate's fee £4 4s. 0d. Witness 10/-.
7682	3% Water	
7684	16.5% Water	
7685	10% Water	
7748	20% Fat	Dismissed. No certificate served with summons.
7749	12% Water	
7750	7% Water	
7782	19% Fat	Re-sample at future date.
7791	8% Water	Fined £10, Advocate's fee £5 5s. 0d. Witness 10/-.
7819	29.5% Fat	Appeal samples exonerated vendor (see Nos. 7822, 7825).
7821	15% Water	Fined £10, Advocate's fee £5 5s. 0d.
7822	11.5% Fat	Cautioned.
7825	6.5% Fat	
7851	11% Water	Vendor exonerated by samples in course of delivery (see Nos. 7857 to 7859).
7857	12% Water	Fined £5 4s. 0d., Costs £3 3s. 0d. Witness 10/-.
7858	15.5% Water	
7859	12.5% Water	
7976	7.5% Water	Fined £5, Advocate's fee £5 5s. 0d. Witness 10/-.
8002	13% Fat	Cautioned.
8005	19% Fat	Cautioned.
8044	18.5% Fat	Fined £2.
8050	11.5% Fat	Further investigation to be made.
8054	15 Fat%	Cautioned.
8055	20% Fat	
8056	20% Fat	
8057	5% Fat	
8058	18% Fat	
8094	10% Fat	Re-sample at future date.
8095	11.5% Fat	Re-sample at future date.
8174	31% Fat	Cautioned (see sample No. 8190).
8175	17.5% Fat	Cautioned.
8181	18.5% Fat	Cautioned.
8190	10% Fat	Taken in course of delivery. Cautioned.
8249	18.5% Fat	Cautioned (see Nos. 8254 and 8256 to 8258).
8254	11.5% Fat	Taken in course of delivery. Cautioned.
8256	11.5% Fat	
8257	10% Fat	
8258	16.5% Fat	
8317	5% Water & 12% Fat	Fined £5, Costs £4 10s. Witness 10/-.
8318	2% Water & 14% Fat	
8319	4.5% Water	
8320	1% Water & 11% Fat	
8321	3% Water	
8322	2.5% Water	
8323	3% Water & 12.5% Fat	
8529	35% Fat	Dismissed under Probation of Offenders Act on payment of costs £5 9s. 0d.
8601	15.5% Water	Fined £5, Advocate's fee £2 2s. 0d. Witness 10/-.
8602	16.5% Water	
8637	24.5% Water	Fined £5, Advocate's fee £5 5s. 0d.
8638	24% Water	
8676	15% Water	Fined £5, Advocate's fee £5 5s. 0d. Witness 10/-.
8677	17% Water	
8711	12% Water	Fined £5, Advocate's fee £5 5s. 0d.
8740	17% Fat	To be re-sampled.
8741	5% Water	
8773	9% Fat	Cautioned.
8784	56.5% Water	Fined £5, Advocate's fee £3 3s. 0d.
8854	10.5% Water	Dismissed.
8923	18.5% Fat	Cautioned.
8986	5.5% Water	Fined £8, Costs £5 5s.
8987	7% Water	
8988	5.5% Water & 12% Fat	
8989	7% Water	
8990	8.5% Water	
9050	10% Fat	Cautioned.

No. 7819. Two samples were taken from this vendor, Nos. 7818 and 7819. The former sample was genuine, the fat being 3.0 per cent. Four samples, Nos. 7822 to 7825, were taken in course of delivery and were found to contain 2.65, 3.0, 2.95 and 2.8 per cent. of fat respectively. These exonerated the original vendor and the Inspector visited the farm and found that the herd consisted of all Friesian cows. The farmer was advised to introduce some cows of a breed giving richer milk. Samples from the original vendor and the producer will be taken at a future date.

No. 8002. This sample was bottled milk and samples were taken in course of delivery from two producers. The milk from one of these producers was slightly low in fat content and partly exonerated the original vendor. Further samples will be taken from this producer.

No. 8005. Appeal to the cows samples were taken and three out of four were low in fat content, the lowest being 2.35 per cent. There were 29 cows in this herd, the majority of which were of Friesian breed. The appeal exonerated the vendor and he was advised to introduce cows of some other breed giving milk richer in fat.

Nos. 8054 to 8058. All these milks from the same producer were deficient in fat. The percentage ranged from 2.39 to 2.84. Two appeal to cow samples were taken, the evening sample contained 3.69 per cent. and the morning sample 2.7 per cent. of fat. There were 23 cows in the herd and as the bulked "AM" milk contained only 2.7 per cent. of fat, some of the cows must have given milk containing less than this amount of fat. There was a suspicion that the milk as sold may have been tampered with but this could not be proved. The vendor was cautioned and advised as to intervals between milkings.

No. 8174. Three samples were taken in course of delivery, two of which contained 3.0 and 3.1 per cent. of fat respectively and the remaining one (No. 8190) only 2.7 per cent., which partly exonerated the original vendor. Both the latter and the producer were cautioned.

No. 8175. Two appeal to cow samples were taken and were found to contain 2.85 and 2.6 per cent. of fat. There were 25 cows in the herd, mainly Friesian, producing about 42 gallons of milk. The producer was advised to introduce some cows of another breed giving milk of a higher fat content.

No. 8181. Two other samples were taken from the same producer at the same time as the above sample and were found to contain 3.0 and 4.1 per cent. of fat respectively. The bulked average of the 32 gallons of milk produced works out at 3.13 per cent. of fat. The vendor was cautioned and advised that the bulked milk was above the statutory limit.

No. 8249. Eight samples were taken in course of delivery, and of these four contained the following percentages of fat:—2.65, 2.65, 2.7 and 2.5, but the bulked milk would have contained 3.5 per cent. of fat. The vendor and producer were cautioned and the latter advised that the bulked milk was above the statutory limit.

No. 8529. A land-girl employed by the producer had three churns on a trolley and was selling milk from a bucket. A sample of the milk from this bucket was genuine. The above sample was sold to the Inspector from the only full churn and was drawn off from a tap at the bottom without previous mixing. This sample was 35 per cent. deficient of fat. The appeal to cow sample contained 3.43 per cent. of fat showing that the original sample was actually 43 per cent. deficient of fat.

The facts were admitted by the defence and it was submitted that the milk in this particular churn had stood for about one hour and the fat had risen and therefore the milk at the bottom would be deficient in fat. This is undoubtedly true and evidence was given to the effect that instructions had been given to the employee to mix the milk before sale.

Nos. 8740, 8741 and 8773. Four samples were taken in course of delivery to this vendor, one of which (No. 8773) showed a deficiency of fat of 9.0 per cent., and the remainder were genuine. This partly exonerated the original vendor as regards the deficiency of fat in the sample No. 8740. The amount of added water found in sample No. 8741 was small, and further samples of this vendor's milk will be taken at a future date.

The producer from whom the samples were taken on delivery, was cautioned to the effect that one of the samples was deficient in fat but that the bulked milk from the whole herd was well above the statutory limit for fat. It was suggested that he should bulk the milk or distribute the milk from the cows giving low fat amongst all the churns.

No. 8854. The sample was taken from a pint bottle of milk and an appeal to cow sample taken the next day, at the morning milking, contained 8.93 per cent. of solids-not-fat and had a freezing point of minus 0.553° Centigrade compared with minus 0.463° Centigrade of the original sample.

By comparison of the solids-not-fat of the two samples, the original sample is shown to contain 15.0 per cent. of added water. Furthermore the most accurate estimate of the amount of extraneous water present is given by the comparison of the freezing points of the two samples which in this case indicates 14.5 per cent. of added water. This is in good agreement with that estimated from the comparison of the solids-not-fat figures.

The case was dismissed and it was held that the onus of proof, that the milk was as it came from the cow, had been discharged by thedefendant.

No. 8923. This sample contained only 2.44 per cent. of fat but another sample from the same vendor taken at the same time contained 8.47 per cent. The vendor, a woman, returned to her vehicle after serving milk from a pail, and added more milk from a churn, by means of a tap fixed to the lower portion of the churn, without first of all mixing the milk in the churn. The original sample (No. 8923) was taken from this milk in the pail. The other sample containing 8.47 per cent. of fat was taken by the woman from the top of the milk in the churn, again without mixing. The explanation of the difference in fat content of the two samples is undoubtedly the failure to mix the milk in the churn.

The vendor was cautioned to the effect that the milk must be properly plunged or stirred before sale, otherwise she may be liable to legal proceedings for selling milk deficient of fat.

Average Composition of Milk Samples.

Year.		Total Solids.		Fat.		Solids-not-Fat.
1939	...	12.60	...	3.77	...	8.83
1945	...	12.45	...	3.67	...	8.78
1946	...	12.67	...	3.77	...	8.90
1947	...	12.56	...	3.74	...	8.82

It will be noted that the composition of milk during these years has remained fairly constant in spite of the difficulties of obtaining feeding stuffs, which is frequently put forward by the defence as the reason for the poor quality of adulterated milk.

Other Adulterated or Incorrect Samples.

No.	Description.	Nature of Offence.	Action taken and results of legal proceedings.
7550	Lime Juice Cordial	46.5% deficient of sugar.	Cautioned (Old stock).
7572	Compound Lemon and Ipecac Mixture	Label an infringement of the Pharmacy & Medicines Act, 1941. (Ingredients and amounts not stated.)	Reported to the Pharmaceutical Society.
7610	Canned Beans & Tomato Sause	Incorrect label (No weight stated).	Reported to Manufacturers.
7635	Radio-Active Spa Mud	Incorrect label (Source of mud not indicated).	do.
7667	Ginger Cordial	50% deficient of sugar; 33% excess of saccharin.	Old stock. Remainder withdrawn from sale. Cautioned.
7697	Iodised Blood Mixture	Incorrect label (should not bear a reference to "Scrofula").	Reported to Pharmaceutical Society.
7839	Powdered Gelatine	400 parts of zinc per million.	Cautioned. Statement by vendor satisfactory.
7840	Chest & Lung Mixture	Incorrect label ("Double strength" no meaning).	Reported to Manufacturers.
7876	Vanilla Flavouring Essence	Incorrect label (No weight or volume stated).	Reported to Manufacturers. New label satisfactory.
7969	Seltzer Granules	Incorrect label (No ingredients or quantitative particulars stated).	Reported to Pharmaceutical Society.
7970	Honey, Glycerine & Lemon	Incorrect label (Recommended for coughs and colds but no quantitative particulars stated).	do.
8035	Non-alcoholic Cocktail	Incorrect label (Should not be described as a "Cocktail").	Cautioned.
8099	Witch Hazel	98% deficient of Boric Acid.	Informal sample (see sample No. 8144A).
8134	Powdered Gelatine	200 parts of Zinc per million.	Cautioned.
8144A	Witch Hazel	98% deficient of Boric Acid.	do.
8209	Raspberry Flavour Cordial	66.7% excess of sugar; 100% deficient of saccharin.	Reported to Ministry of Food.
8223	Travel Sickness Remedy	Incorrect label (No pharmacist's name or address).	Reported to Pharmaceutical Society.
8238	Oil of Cloves	20% Oil of Cloves; 80% Foreign Oil	Cautioned.
8239	Tonic Preparation	Incorrect label (No Pharmacist's name or address stated).	Reported to Pharmaceutical Society.
8384	Sweet Pickle	Incorrect label (No price and no address on label).	Reported to Manufacturers. Explanation satisfactory.
8493	Raspberry Flavour Cordial	The sale is an infringement of the Order.	Reported to Ministry of Food.
8553	Ammoniated Tincture of Quinine	80% deficient of Ammonia; 77.8% below lower limit.	Cautioned.
8647	Whisky	15.9% added water.	Dismissed.
8648	Whisky (Informal)	29% added water.	See No. 8647.
8663	Cough Mixture	Incorrect label (No seller's name or address of premises at which article was sold).	Reported to Pharmaceutical Society.
8692	Lemonade	14.5% deficient of acid content.	Letter to Regional Secretary of the Soft Drinks Industry Association.
8734	Scone Flour	Larva (and webs) of the moth Ephestia kuhniella present.	Cautioned and information passed on to Manufacturers.
8427	Wheat Flakes (Private)	Infested with beetle Stegobium paniceum.	Shop visited by Inspector.
8764	Easton's Syrup	Incorrect label.	Reported to Pharmaceutical Society.

No.	Description.	Nature of Offence.	Action taken and results of legal proceedings.
8749	Table Jelly (Informal)	Incorrect label (No address and no appropriate designation of the ingredients).	Omissions authorised by licence.
8913	Jelly Crystals (Informal)	Incorrect label (No appropriate designation of ingredients).	Vendor cautioned. Letter to Manufacturers; reply satisfactory. New carton to be submitted when available.
8962	Lemonade (Informal)	25.3% deficient of acid content. Sugar and saccharin conform to Order 945 but not to Order 1511)	Formal sample taken. See sample No. 9035.
8969	Iron Tonic Pills	Incorrect label.	See sample No. 9004.
8974	Savoury Sausages	Not a specified food and therefore sale infringes Order.	Reported to Ministry of Food for action.
8976	Ginger Wine Essence	Incorrect label (No appropriate designation of ingredients and no weight or volume stated).	Letter to Ministry of Food re terms of licence. New label approved by Ministry. Sample very old stock.
9004	Iron Tonic Pills	Incorrect label (Formula not in accordance with the analysis).	Letter to Manufacturers. Reply satisfactory.
9010	Lemon Curd (Informal)	16.9% deficient of soluble solids; 11% deficient of fat.	Letter to Ministry of Food re agreed standard. (Official sample 9071.)
9035	Lemonade	33.3% deficient of acid content; 30% deficient of sugar (Sugar content conforms to previous Order No. 945).	Reported to Ministry of Food for action.
9071	Lemon Curd	15.3% deficient of soluble solids.	Reported to Ministry of Food.
9074	Ground Almond Substitute	Contains 85% flour, and only 4.2% of oil which could be wholly derived from the flour and soya present.	Fined £5.
9106	Savoury Sausages	Not a specified food and therefore sale infringes the Order.	Reported to Ministry of Food for action.

No. 7550—Lime Juice Cordial. The amount of acid content, sugar and saccharin found showed that the sample complied with the provisions of a previous Order. This was pointed out to the vendor and he was advised to approach the manufacturers with regard to replacement.

No. 7635—Radio-Active Spa Mud. The label bore the statements: "Medicinal", "Antiseptic Nature's Own Skin Healer", "Natural Curative Spa Mud 100%", and the formula. Judging by the latter it seemed very doubtful that the mud possessed any radio-active properties unless there were traces of radio-active substances present, apart from the ingredients included in the formula. The Pharmaceutical Society informed me that the manufacturers had already been approached by them and had produced a certificate showing that the mud had been tested and found to contain Radium to the extent of 0.05 x 10^6 mgm per gram. The manufacturers had agreed to indicate the source of the mud. I approached the manufacturers and pointed out that no indication of the origin of the mud was on the above sample and that in my opinion it would be to their advantage to state the amount of radio-activity on the label. They replied that all the samples in future would have the source stated and submitted a specimen of the new pack; the source was indicated on the inner wrapper. They further stated that they were perfectly willing to adopt any suggestions put to them, but thought that suggestions should be put to the Pharmaceutical Society for their opinion. The Society replied to a letter from me to the effect that it would appear to be in the interests of the manufacturers that they should refer to the radio-activity of the substance but, providing they name the substance with an appropriate designation, the law does not appear to insist on anything further.

No. 7697—Iodised Blood Mixture. One of the claims made on the label was that the mixture removes "Scrofula". This may indicate that the preparation was offered for a tuberculosis condition (Pharmacy & Medicines Act, 1941, Section 8 (1)), and it was reported to the Pharmaceutical Society who approached the manufacturers. A reply from the latter regretted the error and gave an assurance that future labels would be amended and the word "Scrofula" omitted.

Nos. 7839 & 8134—Powdered Gelatine. The Edible Gelatine (Control) Order, 1947, came into force towards the end of February of that year. The Order defines a product known as Edible Gelatine, prohibits the use of gelatine other than edible gelatine in the manufacture of food and prohibits the use of edible gelatine in the manufacture of any food not specified in the Schedule to the Order. Limits are given for mineral matter and for arsenic, lead, copper and zinc. In the case of zinc the limit is 100 parts per million.

No. 7840—Chest & Lung Mixture. The label bore the words "Double Strength", which in my opinion has no meaning as applied to this article. The manufacturers agreed that this was so and eventually a sample of a new label was received which was satisfactory.

No. 7969—Seltzer Granules. The label bore the statement:—"The Modern Method for the Relief of Indigestion, Fatigue, Liver Disorders, Over Indulgence and Morning Sickness in Pregnancy", and in my opinion it is recommended as a medicine and the label should therefore state the appropriate designation and quantitative particulars of the ingredients (The Pharmacy & Medicines Act, 1941, Section 11). Reported to the Pharmaceutical Society for action.

No. 8035—Cocktail (Non-Alcholic). The main label bore the following statement:—"—— Cocktail (non-Alcoholic). The Connoisseur of Cocktails". On the other side of the bottle a small label gave the formula and bore the words "—— Cocktail Tonic". The article was a tonic preparation and was certainly not a cocktail. The manufacturers were asked for their observations and their reply stated "The Ministry of Food communicated with us in October last and this together with two more of our lines were discontinued to be manufactured or sold as from October, 1946". The vendor was cautioned and his remaining stock was destroyed.

Nos. 8099 and 8144A—Witch Hazel. The labels on these samples stated "—— Witch Hazel prepared by a new process contains 2 per cent. of boric acid". The manufacturers were asked for their observations, and replied "We can only surmise that a carboy of American Witch Hazel (a more expensive product) was inadvertently placed in the mixer towards the end of filling a batch of —— Witch Hazel, thus causing a reduction of the boric acid content. We have taken steps to obviate the possibility of any recurrence of this nature. Steps are being taken to recover any remaining stocks from this particular batch and the bottles returned to us will be replaced by fresh stock". The vendor was cautioned and advised to contact the manufacturers.

Nos. 8209 and 8493—Raspberry Flavour Cordial. The manufacturers were asked for their observations, and in their reply they stated "This article is our speciality. We cannot understand why the sample contains an excess of sugar and no saccharin but it appears from your analysis that an error has been made in the syrup-room with this particular batch".

The sale of this sample is an infringement of the Soft Drinks Order, 1946. No liquid soft drink may be sold except under a description specified in the Order. The above description does not appear in Column 1 of the First Schedule of the Order.

No. 8223—Travel Sickness Remedy; No. 8239—"Tonic Preparation"; and No. 8663—Cough Mixture. No. 8223 contained hyoscine hydrobromide, No. 8239 contained Ext. Nux. Vomica Sicc. and No. 8663 contained tincture of aconite and codeine phosphate, and according to the Pharmacy & Poisons Act, 1933, the container should bear the seller's name and the address of the premises on which it was sold. Reported to the Pharmaceutical Society for action.

No. 8238—Oil of Cloves. This was an informal sample and was so small that a full examination could not be made. A larger sample was taken from the same chemist but this proved to be genuine. The foreign oil had a similar odour to that of oil of turpentine and the analytical figures for the boiling point, iodine value and specific gravity were consistent with it being this oil.

The chemist was cautioned, and the explanation given was that the manufacturers delivered the oil of cloves to him in the small bottles and he sold it as it had been received. A further sample taken at a later date was also genuine.

No. 8384—Sweet Pickle. The Pickle and Sauces Order, 1947, requires that the label must bear the following statement:—

(*a*) the minimum contents in fluid ounces;

(*b*) "Retail Price" followed by the price in figures not less than ¼ inch in height;

(*c*) The name of the manufacturers and the address at which business is carried on.

The label on the above sample infringed (*a*), (*b*) and no address was given. A letter was written to the manufacturers who replied that the consignment was surplus to the requirements of the Armed Forces and had been purchased from the Salvage Division of the Ministry of Food. This explanation is satisfactory as the sale is covered by Article 7 (*c*) of the Order.

No. 8553—Ammoniated Tincture of Quinine.

This was an informal sample and a formal sample taken the next week proved to be genuine. The vendor offered the explanation that he bottles from a bulk stock and during the hot weather evaporation took place while the small bottles were being filled. Also the liquid in the stock container was low and repeated openings caused more than the normal evaporation. The formal sample was taken from a bottle which had been recently opened.

The explanation of evaporation is probably correct and is borne out by the fact that the quinine sulphate present in the sample is in excess of the required amount, but, in my opinion, there must have been gross carelessness in the storage of the bulk. He was cautioned that steps should be taken to ensure that in future the stock is kept under better conditions.

Nos. 8647 and 8648 (Informal)—Whisky. The vendor was prosecuted for obstruction and adulteration.

The formal sample was a very small one amounting to only 1.5 fluid drachms (1½ teaspoonfuls). Two whiskies were asked for and supplied. The vendor was told that the purchase was for the purpose of analysis and the Inspector made a request for the remainder of the whisky in the bottle. The vendor began to pour the whisky from the bottle and knocked over the glasses containing the two whiskies. The Inspector was able to save some of the liquid in the glasses and mixed this with the remainder in the bottle. The whole was then divided into three parts, the above sample being one of these parts. The remaining liquid on the zinc counter was soaked up in a cloth and transferred to another bottle (No. 8648). This latter sample showed approximately 29 per cent. added water.

The defence maintained that there was water on the zinc counter and that the Inspector had mixed the whisky which had been spilt on the counter with that remaining in the bottle and glasses and had also added the whisky soaked up with the cloth and he had then taken the sample. The water had therefore been added to the whisky after the sale. It was also alleged that the Inspector knocked over the glasses accidentally. It was probably true that there was water on the zinc counter, as the informal sample containing the soaked up whisky contained more water than the formal sample, but the latter sample was quite bright and clear whereas the former was cloudy and contained particles of suspended matter. This, in my view, confirms the statement that the informal sample contained the whisky from the squeezed out cloth, and that the formal one was of the whisky as sold.

The case against the defendant was dismissed on both summonses.

Nos. 8692, 8962 and 9035—Lemonade. No. 8692 was an informal sample and the results of the analysis were sent to the Regional Secretary of the Soft Drinks Industry Association requesting him to draw the attention of the manufacturer to the deficiency and to caution him that his products must conform more nearly to the requirements of the Soft Drinks Order, 1946. Samples Nos. 8962 (Informal) and 9035 (Formal) were taken from the same vendor. According to the Soft Drinks Order, 1946, as amended by the Soft Drinks Amendment Order, 1947, Lemonade should contain a minimum free acid content of 1.5 ounces per 10 gallons, but the official sample contained only 1.0 ounces per 10 gallons. This case has been reported to the Ministry of Food for action.

No. 8734—Scone Flour, and No. 8427—Wheat Flakes. The constituents of the Scone Flour were correct according to the label, but larva of the moth Ephestia kuhniella (the flour mill pest) was found together with webs due to the presence of the larva. Other similar samples were taken from the same shop and found to be satisfactory.

The information was passed on to the manufacturers pointing out that this contamination is very undesirable and would lead to the condemnation of the flour as unfit for human consumption if the contamination were considerable, and asking that steps should be taken to prevent this contamination.

The sample of wheat flakes was submitted by a private purchaser and was found to be infested with beetles, probably Stegobium paniceum, which is found in biscuits and other cereal products. Visits were paid to the shop and to the source from which the shopkeeper obtained his stock. The shop and source proved satisfactory and no apparent source of infestation was found. A sample of wheat flakes was taken from the wholesaler and was found to be satisfactory.

No.8764—Easton's Syrup (Informal sample). This preparation contains strychnine phosphate and according to the Poisons Rules, 1935, Section 19, and the Seventh Schedule, the following statement should appear on the container:—"Caution. It is dangerous to exceed the stated dose." Alternatively, an entry should be made in the book used for this purpose, which must include the name of the person to whom it was supplied. The "caution" did not appear on the label, neither was the name of the person purchasing the medicine asked for or given. The case was reported to the Pharmaceutical Society who replied that their Inspector would visit the shop and draw the pharmacist's attention to the requirements of the Act.

Nos. 8969 and 9004—Iron Tonic Pills (Informal samples). These two samples were taken from the same shop.

The analysis gave the following results:—

Moisture	10.0%.
Glucose	43.0%.
Iron oxide	26.0% (equivalent to 42% of ferrous carbonate).
Carbon dioxide	13.0%.
Gelatine	8.0%.
Vanillin	present.
Saccharin	too small to estimate.

Sodium and sulphates were absent.

The label stated the formula to be:—

"Ferr. Sulph. Exsic. B.P. 19.629% ; Sod. Carb. Exsic. B.P. 13.704% ; Glucos Liq B.P. 43.266% ; Saccharin B.P.C. 0.017% ; Gelat. B.P. 9.833% ; Vanillin B.P.C. 0.033% ; Aqua. Dest. 13.518%."

A report was sent to the manufacturers setting out the above analysis and these points were made:—

"(1) The formula does not represent the actual composition of the article.

(2) The formula does not represent the amounts of the separate ingredients used in the preparation of the pills.

(3) The statement of percentages to three places of decimals is surely claiming a far greater accuracy than can be obtained and it would be quite sufficient if the amounts were expressed in percentages to the nearest unit."

I received a reply together with a sample of the new label which was now being used, and this gave the formula as:—Ferr. Carb. 46.5; Glucose Liq. 43.0; Gelatine base and flavouring to 100—which was satisfactory.

Nos. 8974 and 9106—Savoury Sausages. The meat content of these samples were 43 and 34 per cent. respectively compared with the 50 per cent. of meat standard for beef sausages.

According to the Meat Products & Canned Meat (Control and Maximum Prices) Order, 1947, no person shall manufacture or sell any open meat product or cooked meat unless it is a "specified food" or "excepted product".

Savoury sausage is not included in the list of excepted products and it is not a specified food as defined by the Order and therefore the manufacture and sale of the above sample is an infringement of the Order.

Certificates of analysis together with the relevant information have been sent to the Ministry of Food for the appropriate action.

Nos. 9010 (Informal) and 9071—Lemon Curd. According to the Food Standards (Preserves) Order, 1944, lemon curd must contain not less than 65 per cent. of soluble solids. The above samples contained 54 and 55 per cent. respectively. The fat content in both samples was also only 2.6 per cent. but the percentage of dried egg was 2.5 per cent. in each case.

A letter was sent to the Ministry of Food requesting information regarding an undertaking to conform to a minimum percentage standard for "Fruit Curd" entered into by licenced manufacturers when the licence is granted. In reply it was stated that the undertaking has been suspended by an arrangement under which the specific proportion of the several ingredients are incorporated in the licence to manufacture, with the result that any departure from these ingredients or from specified quantities constitutes an infringement of the licence which is an offence under the Preserves Order. The latter Order is enforceable only by the Ministry and the Analyst's report has been referred to the Commodity Division concerned with an investigation. The certificate and information relating to the formal sample have been sent to the Ministry of Food so that the appropriate action may be taken with regard to any infringement of the terms of the licence, and the deficiency of soluble solids.

No. 9074—Ground Almond Substitute. The above sample consisted mainly of wheat flour together with approximately 15% of soya. The 4.2 per cent. of fixed oil could be wholly derived from the flour and soya. It possessed a slight odour and flavour of almonds.

Ground almonds contain from 50 to 60 per cent. of fixed oil and no starch, but this sample contains less than one-tenth of this amount and also starch, equivalent to 85 per cent. of wheat flour.

In my view any substitute for ground almonds should correspond to some extent with ground almonds, and should contain at least 25 per cent. of fixed oil. This product is mainly flour and as a substitute for ground almonds it would be used mainly for making marzipan and as almond paste in the icing of cakes. It would, therefore, be eaten uncooked and might cause digestive trouble in young children.

Flour costs 3d. per lb. retail, soya 10½d. per lb. retail, and a mixture of 85 per cent. flour and 15 per cent. soya would cost less than 4½d. per lb. retail. The above sample was sold at 2/- per lb.

Ice Cream.

Sold as:	Price.	Fat content.	Total solids.
Ices	8d.	1.3	22.8
Ice cream	6d.	6.7	32.6
Ices	6d.	0.1	19.4
Ices	6d.	2.4	25.5
Ice cream	6d.	9.2	34.4
Cream ices	6d.	0.03	20.1
Ice cream	7d.	2.3	23.9
Ice cream	8d.	1.7	19.5
Ice cream	6d.	2.9	21.4
Ice cream	6d.	3.0	17.3
Ices	8d.	0.7	21.0
Delicious ices	1/-	4.6	22.0
Ices	6d.	1.3	16.5
Pure ice	8d.	1.9	15.6
Delicious ices	8d.	0.2	25.9
Pure ice cream	9d.	1.9	21.7
Delicious ices	9d.	2.4	22.8

The two samples containing 6.7 and 9.2 per cent. of fat respectively were well known makes.

The definition of "ice-cream" given in the Food and Drugs Act, 1938, is:—"includes any similar commodity", and that given in the Ice-Cream (Heat Treatment) Regulations is:–"includes water ices, and any article, whether frozen or chilled and under whatever description it is sold, which is so similar to ice-cream as to constitute a substitute therefor".

The second definition is adequate and good for the purposes of the Heat Treatment Order, but neither definition is good from any other aspect. The definition under the Food and Drugs Act is so vague that all similar commodities may be sold as ice-cream, whereas most of the products on the market should be sold only as ices or water ices as the fat content in no way justifies the description of "Cream". At least one would expect that the lack of quality would be reflected in the price, but apparently it is not the slightest guide in this respect.

Until the allocation of fat to ice cream manufacturers is increased it seems that ice cream of good fat content (8 per cent. or more) is not likely to be produced in the great majority of cases, but even so, in my opinion, the price charged for this commodity should bear some relation to its quality, and the definition of ice cream could be altered so that the name under which the product is sold would convey to the purchaser some idea as to the fat content of the article.

TABLE I.

Causes of, and Ages at Death during the Year 1947.

CAUSES OF DEATH.	NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.						
	All ages.	Under 1 year.	1 and under 5 years	5 and under 15 years	15 and under 45 years	45 and under 65 years	65 and up-wards.
Typhoid and paratyphoid fevers	0	0	0	0	0	0	0
Cerebro spinal fever	8	2	1	1	1	2	1
Scarlet fever	1	0	0	1	0	0	0
Whooping cough	12	8	4	0	0	0	0
Diphtheria	1	0	1	0	0	0	0
Tuberculosis of respir. system..	155	1	0	0	95	44	15
Other forms of tuberculosis ...	45	1	8	8	20	6	2
Syphilitic diseases	25	0	0	0	2	10	13
Influenza	34	1	0	0	1	5	27
Measles	4	0	3	1	0	0	0
Acute poliomyelitis and polio-encephalitis	1	0	1	0	0	0	0
Acute inf. encephalitis ...	3	0	0	0	0	1	2
Cancer of buc. cavity & œsoph. (M), uterus (F)	99	0	0	0	4	33	62
Cancer of stomach & duodenum	196	0	0	0	8	71	117
Cancer of breast	109	0	0	0	7	42	60
Cancer of all other sites ...	542	1	2	3	26	172	338
Diabetes	40	0	0	0	2	12	26
Intra-cranial vascular lesions ...	827	0	1	1	9	165	651
Heart disease	1842	0	0	0	31	294	1517
Other diseases of circ. system...	236	1	0	0	7	42	186
Bronchitis	309	4	4	0	6	50	245
Pneumonia	185	30	5	2	9	28	111
Other respiratory disease ...	91	0	2	1	9	38	41
Ulcer of stomach or duodenum	47	0	0	0	4	19	24
Diarrhœa, under 2 years ...	14	14	0	0	0	0	0
Appendicitis	16	0	0	4	2	5	5
Other digestive diseases ...	136	5	4	1	9	48	69
Nephritis	198	0	0	1	12	50	135
Puerperal and post-abort. sepsis	4	0	0	0	4	0	0
Other maternal causes ...	13	0	0	0	13	0	0
Premature birth	96	96	0	0	0	0	0
Congenital malformations, birth injuries, infantile diseases ...	124	113	2	2	4	2	1
Suicide	58	0	0	0	14	32	12
Road traffic accidents	73	0	4	9	28	17	15
Other violent causes	156	19	2	5	29	18	83
All other causes	624	5	8	7	53	74	477
All causes	6324	301	52	47	409	1280	4235

TABLE II.

Causes of Death at all Ages in each District during the Year 1947.

RURAL DISTRICTS.

CAUSES OF DEATH.	AXBRIDGE.	BATHAVON.	BRIDGWATER.	CHARD.	CLUTTON.	DULVERTON.	FROME.	LANGPORT.	LONG ASHTON	SHEPTON MALLET.	TAUNTON.	WELLINGTON.	WELLS.	WILLITON.	WINCANTON.	YEOVIL.	TOTAL RURAL DISTRICTS.
Typhoid and paratyphoid fevers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cerebro spinal fever	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	4
Scarlet fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Whooping cough	0	0	0	0	0	0	0	0	1	0	3	0	0	1	0	0	5
Diphtheria	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Tuberculosis of respir. system..	8	6	8	3	3	1	1	5	7	5	5	2	2	4	3	5	68
Other forms of tuberculosis ...	2	1	4	0	2	0	1	0	4	1	4	1	2	2	1	0	25
Syphilitic diseases	0	0	1	0	2	0	0	0	0	1	0	1	0	1	1	2	9
Influenza	1	6	3	0	1	0	0	1	1	0	1	2	1	1	1	0	19
Measles	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Acute poliomyelitis and polio-encephalitis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Acute inf. encephalitis ...	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Cancer of buc. cavity & œsoph. (M), uterus (F)	10	3	2	1	3	0	1	3	6	3	3	4	2	4	4	7	56
Cancer of stomach & duodenum	6	11	9	6	9	1	4	4	9	6	6	2	3	8	11	7	102
Cancer of breast	10	8	2	6	5	1	0	3	5	1	3	1	4	5	2	5	61
Cancer of all other sites ...	25	23	20	18	15	0	7	7	35	11	15	10	13	15	22	20	256
Diabetes	2	1	1	1	3	2	1	1	2	1	0	0	0	0	1	4	20
Intra-cranial vascular lesions ...	48	31	24	21	30	8	9	30	40	19	35	13	11	35	26	42	422
Heart disease	108	93	72	34	60	16	47	50	79	50	67	14	43	49	81	65	928
Other diseases of circ. system...	14	6	4	5	8	3	2	7	11	8	8	8	10	11	11	12	128
Bronchitis	15	13	17	7	9	1	8	7	19	8	10	9	4	16	12	12	167
Pneumonia	1	11	6	3	7	0	6	3	8	6	8	5	8	6	6	2	86
Other respiratory disease ...	1	6	6	1	6	0	2	3	3	1	7	1	2	3	1	3	46
Ulcer of stomach or duodenum	2	1	4	1	1	0	1	0	4	3	0	0	0	2	0	1	20
Diarrhœa, under 2 years ...	1	0	1	0	0	1	0	0	1	0	0	1	0	0	0	2	7
Appendicitis	1	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	5
Other digestive diseases ...	6	5	6	7	1	1	6	4	4	3	2	3	2	6	8	2	66
Nephritis	14	11	12	1	7	0	1	7	12	4	7	1	6	4	5	6	98
Puerperal and post-abort. sepsis	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4
Other maternal causes ...	0	0	2	0	0	0	0	1	0	0	1	1	0	0	0	1	6
Premature birth	6	1	3	5	1	4	3	4	3	1	8	1	2	5	2	3	52
Congenital malformations, birth injuries, infantile diseases ...	9	7	2	1	7	2	3	1	7	3	1	5	3	4	6	5	66
Suicide	2	3	0	2	1	2	2	3	4	1	4	1	3	1	1	1	31
Road traffic accidents	8	4	2	1	3	1	0	4	3	1	5	2	0	2	6	3	45
Other violent causes	8	6	10	2	2	0	4	3	12	1	8	5	3	8	2	7	81
Ali other causes	30	19	28	23	7	12	13	19	37	20	24	16	22	27	14	31	342
All causes ...	341	278	249	152	196	56	122	170	317	159	235	110	147	221	228	248	3229

Prosecution or other action cannot be taken with much chance of success under the present conditions.

Special Investigations.

The following 10 samples were received for special investigations:—

1 piece of cloth for examination of stains. No spermatozoa were found and Florence's test was negative.

2 Jelly Crystals for poisons. Two children were taken ill and one died. No prohibited dyes and no metallic or alkaloidal poisons were found.

3 Viscera of calf for metallic poisons.

Abomasal contents	...	2.5 parts of lead per million.
Kidney	...	12.5 parts of lead per million.
Portion of liver	...	10.3 parts of lead per million.

No other metallic poisons were found.

1 Tin of Meat and Vegetables. One tin submitted from batch. Many guests had been affected with sickness and diarrhœa. Arsenic, antimony, lead and copper absent. Zinc 20 parts per million, tin 0.9 gr. per lb. The analysis therefore did not reveal the cause of the sickness.

1 Tin of Crab Paste. Complaints of peculiar smell. Smell and taste were normal. The tin was lacquered and showed no signs of attack. Biological test—no symptoms.

1 contents of crop of a chicken. Death alleged to be due to rat poison. There was a strong smell of phosphine. Zinc present equivalent to 2.2 grains zinc phosphide in contents received. This quantity would be sufficient to cause death. The source of the phosphide was probably rat poison which had been put down in the neighbourhood.

1 Tin of Marmalade. Complaints by hospital staff. The taste was normal and there was no evidence of metallic contamination.

Rag Flock Act, 1911.

One sample of Rag Flock was received and it was found to contain soluble chlorides amounting to 16.5 parts of chlorine per hundred thousand. The sample satisfied the requirement of the Regulations, 1912, which is a limit of 30 parts of chlorine per hundred thousand.

Chemical Analysis of Drinking Water.

75 samples of water were analysed. The analyses included the usual routine chemical analysis, estimations of fluorine and tests with reference to the action of water on metals, especially lead.

Sewages, Effluents, etc.

The 103 samples were as follows:—

Sewage and sewage effluents	... ...	38
Trade effluents	... ...	10
River and stream samples ...	... ...	48
Gas Works effluent and discharges	...	7

Two samples of effluent were examined for formaldehyde and were found to contain 200 parts per million. Horses drinking the stream water into which this effluent discharged had developed symptoms of soreness of the mouth and a veterinary surgeon suggested that these symptoms may have been caused by formaldehyde in the factory effluent. The samples were taken to show the maximum amount that might be present and it is very improbable that the amount of formaldehyde found would have caused the symptoms.

Miscellaneous Samples (25).

8 **Tins of Jam.** One tin condemned because the tin leaked and part of the contents had been lost. The remainder were passed as fit for consumption.

2 **Cornflour** (Complaint from School Meals Service). The samples were found to be satisfactory and the fault was in the manner of preparation.

1 **Tinned Apples.** The inside surface of the tin was in good condition; no tin was found in the contents.

1 **Water from a cellar.** (Sewage or surface water?). Analysis showed that it was probably surface water.

1 **Earth from under floor of house.** Complaint of smell, alleged contamination with coal tar products. No evidence of oil or other contamination indicative of coal tar products was found.

12 **samples of Essences,** received from the Chief Education Officer for the County, consisting of 3 of each of vanilla, lemon, almond and banana flavourings. One sample of vanilla essence was a natural product, the other two being synthetic articles. The former contained 1.74 per cent of vanillin compared with 0.38 and 0.43 per cent. in the synthetic products.

One of the lemon essences contained 100 per cent. of oil of lemon, whereas the other two were artificial products. All the banana and almond essences were synthetic, the former containing 12.7, 19.5 and 28.3 per cent. of esters expressed as amyl acetate and the latter 2.3, 5.8 and 7.5 per cent. of benzalehyde.